Canadian Petroleum Industry

1988 Monitoring Report

Annual

Canada

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The Honourable Jake Epp
Minister of Energy, Mines and Resources
Ottawa, Ontario

Dear Minister:

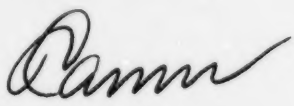
I am pleased to submit this report which describes the financial performance of the oil and gas industry in Canada during 1988 and which presents data for ten years of industry operations. The report is based on data from 125 companies accounting for some 90% of total revenues of the petroleum industry. Therefore, the data reflects fairly the performance of the entire industry in Canada.

Overall net income during 1988 declined 27% to $2.4 billion. The weakness in international crude oil prices together with the rise in the Canadian dollar in relation to the U.S. dollar resulted in average prices for crude oil and natural gas dropping to their lowest levels in nearly a decade. This situation put downward pressure on the industry's profitability and cash flow.

The price decline for oil and gas came after a period of relative stability and improvements in profitability during 1987 compared with 1986. Improved cash flow in 1987, optimism about future prices, and new government incentives to promote capital expenditures encouraged the industry in 1988 to commit itself to increased capital outlays – up 19% or $1.4 billion.

The time lags so typical of this business resulted in a 20 percentage point rise in the reinvestment rate to 95%. However, early reports for the first half of 1989 indicate a decline in this rate due to a decrease in capital spending.

Respectfully submitted,



Pierre Camu
Chairman

July 11, 1989

New and Noteworthy

New information is presented in this Monitoring Report and, as in the past, it is crucial that the report be read with a number of caveats to which attention is drawn under "Noteworthy".

New

- Chart 3, showing crude oil and marketable natural gas volumes together with their respective average prices, has been provided on page 20 along with the upstream analysis.

- Chart 11 on rate of return on capital employed compares the petroleum industry with other non–financial industries.

- General and administrative expenses, some of which had been reported previously by some companies as 'other cash items', have been reallocated to the reporting category of 'operating costs'. The impact of this transfer has added approximately $500 million to the industry's operating costs in 1988 as well as earlier years. This provides consistency of treatment, allowing for a more comprehensive analysis of industry operating costs.

Noteworthy

- Mergers and acquisitions of companies and asset sales were the main feature of the year.

- The takeovers of Dome Petroleum Limited by Amoco Canada Petroleum Company Ltd. and of Canterra Energy Ltd. by Husky Oil Ltd. have resulted in a discontinuity between the opening and closing position of the industry balance sheet. The use of the 'purchase method of accounting' applied to the combination of companies has resulted in a major step–up of carrying values, i.e. the book values of the combined assets changed without a corresponding change in physical assets.

The resulting changes in the balance sheet have not been reflected in the sources and uses of funds. Similarly, a large reduction of long-term debt that resulted from the renegotiation of loans does not appear in the sources and uses of funds. More details concerning the 'purchase method of accounting' can be found in Appendix E.

- Full implementation of the 1987 change in the control status of Husky Oil Ltd. – from Canadian controlled to foreign controlled – has been provided for in this report together with the reclassification of Canterra Energy Ltd., Dome Petroleum Limited and Bow Valley Industries Ltd.

- In 1987, the reorganization of Gulf Canada Corporation into a number of separate, publicly traded companies resulted in the oil and gas business, formerly carried on by Gulf Canada Corporation's Oil and Gas Division, becoming a separate, publicly traded company bearing the name Gulf Canada Resources Limited. Consequently, the 'other Canadian operations' of Gulf Canada Corporation are no longer included in that category for 1988. Therefore, unusually high 'other sources' and 'other uses' of funds in 1987 were not repeated in 1988.

- Besides the number of major takeovers that occurred in the petroleum industry, there were numerous purchases of reserves in 1988 totalling $2.3 billion vs. $790 million in 1987. These transactions are shown as 'all other uses of funds' in Chapter 2.

- Significant restructuring of the Canadian petroleum industry continued in 1988, due to numerous acquisitions and mergers. Of particular interest were the following, shown in chronological order:
  - Canterra Energy Ltd. sold its 33% interest in Rainbow PipeLine Co. Ltd. to Shell Canada Limited. In addition, Canterra sold 10% of its oil and gas reserves.
  - North Canadian Oils Ltd. acquired a controlling interest in Trigen Resources Corp., a California company involved in the brokerage of natural gas.
  - Manoil Ltd. purchased a 47% minority interest in Pembina Resources Ltd. and now owns 100% of the company.
  - Page Petroleum Ltd. was placed into receivership.
  - Ocelot Industries Ltd. sold its producing crude oil and natural gas properties to Esso Resources Canada Ltd. and Bow Valley Industries.
  - Chauvco Resources Ltd. acquired 89% of Tripet Resources Ltd.
  - Gulf Canada Resources Ltd. acquired Asamera Inc.
  - Total Erickson Resources Ltd. acquired additional shares in Ranchmen's Resources Ltd. to become the single largest shareholder with 44% of voting rights. The company also purchased a controlling interest in Trans–Canada Resources.
  - Canadian Occidental Petroleum Ltd. acquired the energy assets of Moore McCormack Resources Inc., a United States company.
  - Dynamar Energy Ltd. was placed in receivership.
  - Coseka Resources Ltd. sold natural gas reserves to an unidentified buyer.
  - Asamera Inc. sold all of its Canadian oil and gas assets to Gardiner Oil and Gas Ltd.
  - Bow Valley Industries Ltd. acquired natural gas reserves from Ocelot Industries Ltd.
  - Inverness Petroleum Ltd. sold its U.S. subsidiary, Petroleum Reserve Corp.
  - Renaissance Energy Ltd. purchased all of the investors' interest in two partnerships formed to acquire producing oil and gas properties.
  - Alberta Energy Co. increased its interest in Chieftain from 57% to 100%.
  - Amoco Canada Petroleum Co. Ltd. acquired Dome Petroleum Ltd.
  - Columbia Gas Development sold its east coast oil and gas properties to Chevron Canada Resources.
  - Chevron Canada Ltd. sold its 49% interest in Irving Oil Ltd. to the Irving family.
  - Excel Energy Inc. was purchased by B.G. Consulting.
  - Gulf Canada Resources purchased the U.S. oil and gas assets of HPC Inc.
  - Canadian Occidental sold a 6% interest in Syncrude and a 5% interest in OSLO to PanCanadian Petroleum.
  - Mark Resources purchased Erskine Resources.
  - Imperial Oil Ltd. purchased oil and gas assets from United Canso Oil and Gas Ltd.
  - Inter–City Gas Corporation purchased a 14% interest in Ranger Oil Ltd. and a 9.6% interest in Turbo Resources Ltd.
- Appendix A1 'Year in Review' sets out in detail events worthy of note.
- Many *numbers* in the body of the report are *rounded* to improve readability. Percentage changes, however, are calculated on the basis of detailed figures shown in Appendix B.
- While 133 companies have reported to the PMA (see Appendix F), the report is based on data from 125 companies. Eight companies have been excluded due to the lack of comparable data for the preceding period.

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Summary and Highlights

General Economic Background

Canada's real Gross Domestic Product (GDP) grew at an annual rate of 4.5% to $443 billion (1981 dollars) during 1988, as private capital formation was up by 22%, driven by machinery and equipment purchases. Consumer and government expenditures rose by less than the increase in real GDP, while imports rapidly increased, more than offsetting export growth.

Inflation, as measured by the Consumer Price Index, slowed slightly during the current period to an annual rate of 4.1% against 4.3% in 1987. Unemployment dropped from 8.9% in 1987 to 7.8% in 1988 as employment grew from 11.9 million to 12.2 million persons.

Overall energy demand grew by 4.8%. Average crude oil prices declined 26% in 1988 to $100 per m^3 ($15.80 per bbl) while average natural gas prices decreased 9% to $54 per 10^3m^3.

Financial Performance

Total Operations

- Profits: *Net income from total operations declined 27% or $890 million to $2.4 billion in 1988 vs. 1987.* The decline in crude oil and natural gas revenues due to lower world prices and the strengthening of the Canadian dollar vis-à-vis the U.S. dollar lowered upstream net income. In addition, higher operating costs, increased federal excise taxes and higher non-cash charges further reduced overall industry profits.

Partly offsetting these negative factors were lower royalties, interest charges, and current income taxes.

- Net income for foreign-controlled companies fell 42% to $1.2 billion as lower net income was recorded for upstream, other Canadian operations and foreign activities, while net income was higher for downstream operations. Net income for Canadian-controlled companies declined by only 1% to $1.2 billion as reductions in activities other than downstream offset gains in downstream operations. In addition, overall profits were assisted by an extraordinary gain of $320 million in 1988 (vs. an extraordinary loss of $25 million in 1987).

- The rate of return on shareholders' equity for the total Canadian petroleum industry was 5.9% in 1988 against 8.8% in 1987. However, the five-year average rate of return for the period ending in 1988 rose to 4.9% from an average of 4.6% for that ending in 1987. The return on the capital employed by the Canadian petroleum industry in 1988 declined to 4.9% from 6.3% in 1987.

Upstream Operations

- Revenues from upstream operations fell 12% to $15.7 billion in 1988. Increased production of crude oil and natural gas was inadequate to offset the impact of price declines. As higher production volumes resulted in increased operating costs and higher non-cash charges, upstream net income declined markedly: down by 58% ($1.2 billion) to $895 million in 1988. Cash flow decreased by 15% to $5.8 billion.

Downstream Operations

- *Total downstream revenues* decreased 2% to $27 billion due to lower cost of goods sold (i.e. feedstock costs). This more than offset the effect of higher demand, especially for petrochemicals, and of increased federal sales and excise taxes passed through to consumers. Net income rose 63% to $1.5 billion in 1988 from $905 million in 1987 due to greater demand for chemicals which provided the major strength in this business segment.

Net income for oil products operations rose 35% ($230 million) to $880 million in 1988 causing the return on capital employed to increase to 8.1% from 6.4% in 1987.

Sources and Uses of Funds

Internal Cash Flow

- *Internal cash flow from total operations decreased 4% to $9 billion* in 1988 due primarily to the effects of lower oil and gas prices, higher sales and excise taxes, and increased operating expenses. The fall in upstream cash flow more than offset improvements in all other business segments.

Net External Sources

- *Net external sources of funds were $700 million for 1988 vs. a negative $2.3 billion in 1987.* Redemptions of long-term debt exceeded new issues by $460 million compared with $3.7 billion of net redemptions in 1987. New equity, net of repurchases, was $1.1 billion in 1988 compared with $1.4 billion in 1987.

Discretionary Uses

- In 1988, the industry increased its net capital outlay by 22% to $8.6 billion reflecting increased incentives provided by the federal and provincial governments. Dividend payments rose 60% from $1.5 billion to $2.5 billion. In 1988, higher 'All Other Uses' resulted from the purchase of assets. The excess of 'All Other Sources' over 'All Other Uses' in 1987 resulted from the transfer of funds due to the reorganization of corporate activities and the sale of corporate assets. The net draw-down of working capital of $3.4 billion in 1988 was in contrast to the unchanged working capital position in 1987.

- *Incentives Grants* (as deductions to gross capital expenditures) were down from $292 million in 1987 (partly PIP grants) to $271 million (mainly CEDIP grants) in 1988.

Capital Expenditures

- *Total Capital Expenditures* in 1988 increased 19% or $1.4 billion to $9 billion, with domestic expenditures increasing 19% and outlays abroad rising 18%. Upstream spending, representing 74% of the total, rose 21% to $6.7 billion.

- *Exploration Expenditures in Canada* rose 11% to $3 billion in 1988, with expenditures increasing 8% in the provinces and 31% on Canada Lands. Expenditures on Canada Lands accounted for 17% of the total vs. 14% in 1987. Outlays by foreign-controlled companies were 5% higher in 1988 than in 1987, while those for Canadian-controlled companies were up by 17%.

- *Downstream Expenditures* rose 10% to $1.3 billion in 1988 over 1987. Higher expenditures on pipelines and marketing outlets more than offset declines in spending on petrochemical plants and refineries.

Reinvestment Rates

- Net capital expenditures absorbed 95% of the industry's internal cash flow in 1988, up from 75% in 1987. Upstream capital expenditures totalled 109% of cash flow, up 35 percentage points from 1987.

Dividends

- *Dividends rose 60% to $2.5 billion in 1988.* Dividends by Canadian-controlled companies more than doubled to $ 85 million for a payout rate of 81%. Payments by foreign-controlled companies rose 36% to $1.5 billion for a payout rate of 122%. A number of unique transactions accounted for the increase in dividends paid by both foreign- and Canadian-controlled companies.

Comparative Performance: Petroleum and Other Industries

Net Income

- According to Statistics Canada data, the petroleum industry's net income from Canadian operations – exclusive of Crown corporation results – decreased 15% to $2.7 billion in 1988, compared with a 27% increase to $24.2 billion for all other non-financial industries. The petroleum industry's net income for 1988 represented 10% of all non-financial industries' net income.

Capital Expenditures

- The petroleum industry's capital expenditures in Canada increased 33% in 1988 over 1987. Capital expenditures of other non-financial industries increased 12% with the result that the petroleum industry represented 21% of total non-financial industries' capital expenditures compared to 18% in 1987.

Ownership and Control Trends

Canadian ownership of the petroleum industry, based on upstream revenues, declined from 45.1% in 1987 to 42.1% in 1988, and Canadian control decreased from 45.2% to 37.6% in 1988. The declines were mainly due to takeover activity in 1988. Canadian ownership of upstream plus downstream revenues rose 0.5 percentage points to 44.3% in 1988, while Canadian control fell 2.4 percentage points to 35%.

Research and Development Activities

The petroleum industry spent $286 million on Research and Development (R&D) activities in 1988, up 24% from 1987. 'In-house' R&D expenditures were $189 million in 1988, up from $143 million in 1987. Contract work performed by others totalled $97 million, up 10% from 1987.

Ten-Year Operating Summary: 1979 – 1988

Noteworthy trends:

- *Revenues* rose steadily after the 1979 oil shock to a peak of $67 billion in 1985. The decline in crude oil prices commencing in January 1986 brought overall industry revenues down by 30% in 1988 from the 1985 high.

- *Internal cash flow* ranged from a low of $7.3 billion in 1979 to a high of $11.6 billion in 1985 and stood at $9 billion in 1988.

- *Capital expenditures* grew rapidly between 1979 and 1985 to reach an all time high of $12.1 billion. They subsequently dropped in 1987 before recovering to $9 billion in 1988.

- *Dividend payments* rose from $0.8 billion in 1979 to reach a ten-year peak of $2.6 billion in 1986.

1

Financial Performance

Total Operations: Net Income and Cash Flow

Petroleum industry revenues declined 6% to $46.9 billion in 1988 over 1987. Lower crude oil and natural gas prices depressed upstream revenues, while revenues in other business segments remained relatively unchanged.

Net income from total operations declined $890 million to $2.4 billion or 27% in 1988 vs. 1987. Upstream profits fell 58% ($1.2 billion) to $895 million in 1988 largely due to lower crude oil and natural gas prices and higher expenses. Reduced domestic producer prices resulted from a combination of lower international prices and the strengthening of the Canadian dollar vis-à-vis the U.S. dollar. Downstream profits, however, rose 63% ($570 million) to $1.5 billion on the strength of both the chemicals business (up $340 million) and the oil products segment which rose $230 million (Appendices B8 and B9). Profits of other Canadian operations were 44% lower – down to $125 million – while net earnings of foreign operations declined from a profit of $75 million in 1987 to a loss of $70 million in 1988.

Internal cash flow from all business segments declined $400 million (4%) to $9 billion. The drop was due to:

- lower crude oil and natural gas prices; and
- higher operating costs (including general and administrative expenses).

Partly offsetting these negative factors were lower royalties, interest charges, and current income taxes.

Table 1.
Overview of Total Operations in billions of dollars[a]

	1987	1988	Change	Change %
Total Revenues	**49.7**	**46.9**	**-2.8**	**-6**
less:				
Operating Costs	9.8	11.0	1.2	11
Interest Expenses	2.3	2.0	-0.3	-12
Non-income Taxes and Royalties	7.1	6.9	-0.2	-3
Other Cash Expenses	19.4	17.1	-2.3	-12
Income Taxes				
Federal	1.3	0.8	-0.5	-39
Provincial	0.2	0.1	-0.1	-72
Internal Cash Flow	**9.4**	**9.0**	**-0.4**	**-4**
less:				
Write-offs[b]	5.7	6.5	0.8	14
Deferred Taxes	0.5	0.4	-0.1	-27
Net Income before Unusual Items	3.2	2.1	-1.1	-34
Unusual Gains	0.2	0.4	0.2	119
Net Income	**3.3**	**2.4**	**-0.9**	**-27**

Notes:
(a) Figures may not add due to rounding. See Appendix B1 for detail by operating segment.
(b) The components of 'write-offs' are non-cash charges and exploration and development expenditures charged to current operations.

Net Income by Sector

Net income for the petroleum industry decreased 27% ($890 million) to $2.4 billion in 1988. While net income for Canadian-controlled companies declined by only 1% to $1.2 billion, that for foreign-controlled companies fell 42% ($875 million) to $1.2 billion.

Canadian-controlled companies reported declines for upstream, other Canadian operations and foreign activities. However, downstream operations showed a gain of $270 million nearly offsetting declines in all other sectors. As overall revenues remained virtually unchanged, higher operating costs of 8% and non-cash charges of 15% more than offset reduced royalties of 11%, lower current and deferred taxes, and an extraordinary gain of $320 million in 1988 (vs. an extraordinary loss of $25 million in 1987), producing the 1% decline in net income. Cash flow for this sector decreased 3% to $3.6 billion in 1988 (Appendix B6).

Net income for *foreign-controlled companies* fell 42% to $1.2 billion in 1988. Lower net income was recorded for upstream, other Canadian operations and foreign activities, while net income was higher for downstream operations. A 7% decrease in overall revenues together with increases in operating costs, non-cash charges, and sales and excise taxes were instrumental in causing lower profits. The takeover by foreign–controlled companies of a number of Canadian-controlled companies with large debt, and consequently high interest charges, resulted in foreign-controlled companies now showing 60% of total industry interest charges in 1988 compared with 30% as indicated in the 1987 Monitoring Report. However, for consistency these companies have been treated in this report as foreign-controlled in both 1987 and 1988. Cash flow for foreign-controlled companies decreased 5% to $5.4 billion in 1988 (Appendix B7).

Table 2.
Net Income by Sector and Segment in billions of dollars

	1987	1988	Change	Change %
Canadian-Controlled Companies				
Upstream	0.9	0.7	-0.2	-22
Downstream	0.2	0.5	0.3	111
Other[a]	0.1	-	-0.1	-
Total Canadian-Controlled	**1.2**	**1.2**	**-**	**-1**
Foreign-Controlled Companies				
Upstream	1.2	0.2	-1.0	-85
Downstream	0.7	1.0	0.3	45
Other[a]	0.2	0.1	-0.1	-69
Total Foreign-Controlled	**2.1**	**1.2**	**-0.9**	**-42**
Total Industry	**3.3**	**2.4**	**-0.9**	**-27**

Note:
(a) Comprises net income generated by foreign activities and other Canadian operations. For more detail see Appendices A12, B6 and B7.

Rates of Return

Return on Equity

The rate of return on average shareholders' equity for the total Canadian petroleum industry was 5.9% in 1988 against 8.8% in 1987. The decrease in profitability was due to the depressing effects of lower crude oil and natural gas prices. Canadian-controlled companies had a 5.8% return on equity while their foreign-controlled counterpart had a 6% return. The industry's average rate of return on equity for the five-year period ending in 1988 increased to 4.9% from an average of 4.6% for the period ending in 1987 (Appendix A13).

The closeness of the rates of return for foreign- and Canadian- controlled companies in 1988 reflects the reclassification, following takeovers, of a number of heavily indebted Canadian-controlled companies to foreign-controlled status and the relatively stronger performance of the remaining Canadian-controlled sector vis-à-vis the foreign-controlled sector.

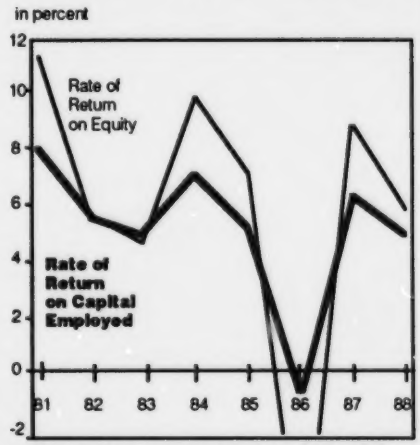
Return On Capital Employed

The return on average capital employed by the Canadian petroleum industry in 1988 declined to 4.9% from 6.3% in 1987. The return on capital employed averaged 4.6% for the five-year period ending 1988 vs. 4.5% at the end of 1987. Upstream return on capital employed fell to 3.6% from 6.6% in 1987, while the downstream return rose to 8.1% in 1988 from 6.4% in 1987.

Foreign-controlled companies obtained a 5% return on capital employed for total operations in 1988, down from 7.5% in 1987. The upstream segment of this sector saw its return on capital employed fall from 7.5% to 3% in 1988.

The *Canadian-controlled* sector's rate of return on capital employed was 4.8% in 1988, down from 4.9% in 1987. The rate of return on upstream capital employed was 4.2% vs. 5.5% during 1987.

Chart 1
Rates of Return: Petroleum Industry



Rate of return on equity extends to -7.1 for 1986.

Table 3.
Rates of Return by Sector and Segment in percent

	Canadian-Controlled		Foreign-Controlled		Total Industry	
	1987	1988	1987	1988	1987	1988
Return on Equity						
Total Operations	6.2	5.8	11.8	6.0	8.8	5.9
Canadian Operations	6.4	6.3	11.8	6.1	8.9	6.2
Return on Capital Employed						
Total Operations	4.9	4.8	7.5	5.0	6.3	4.9
Canadian Operations	5.3	5.4	7.5	5.1	6.5	5.2
Upstream Operations	5.5	4.2	7.5	3.0	6.6	3.6
Downstream Operations[a]	4.4	6.7	7.7	9.0	6.4	8.1

Note:
(a) Downstream, in this table, represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.

Interest Coverage[1]

For the industry overall, income before taxes, extraordinary items and expensed interest was 2.5 times total interest charges, both capitalized and expensed, down from the 3.1 times coverage in 1987. This deterioration in interest coverage was the result of declines in upstream income exceeding the reduction in overall interest charges.

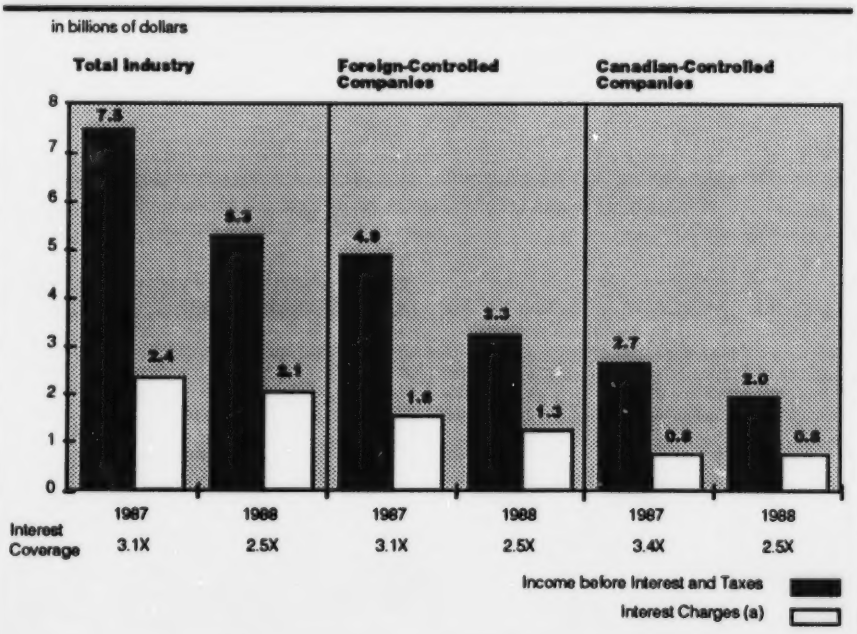
Net income before taxes and interest for Canadian-controlled companies was $2 billion in 1988 – down 24% from the level of $2.7 billion recorded in 1987. Simultaneously, interest charges declined by less than 1% to $800 million which was consistent with the small reduction in long-term debt. Consequently, the interest coverage for this sector declined to 2.5 times in 1988 from 3.4 times in 1987.

Foreign-controlled companies' interest coverage also moved to 2.5 times in 1988, down from 3.1 times in 1987. The decrease resulted from a 32% decline in income before taxes and interest while interest charges dropped only 18%.

In 1988, interest coverage became equal for both foreign- and Canadian-controlled groups for the first time since the Agency has reported this measure of financial health.

(1) This analysis of interest coverage relates to total industry activity since there is neither consistency nor uniformity in the way companies allocate interest expenses among the various business segments – upstream, downstream, other Canadian and foreign.

Chart 2.
Comparison of Interest Charges with Income before Interest and Taxes



Note:
(a) Interest charges shown include both expensed and capitalized amounts. See Appendix A19 for more detail.

Net Income by Company Group

Integrateds and Refiners

A total of 15 companies grouped in the category 'integrateds and refiners' make up almost the entirety of the downstream segment in terms of revenues, and account for 32% of upstream operations. *Net income for the group declined 6% or $115 million to $1.8 billion* in 1988. Lower net income from upstream and other Canadian operations overshadowed higher profits from a buoyant petrochemical segment, a stronger oil products segment and improvements in foreign activities (Appendices B2 and B9).

Oil and Gas Producers

The 110 'oil and gas producers' are active almost exclusively in upstream operations. Net income declined 55% to $640 million in 1988. However, prior to an extraordinary gain of over $400 million in 1988 (resulting from the sale of assets) net income fell 82% to $230 million from $1.3 billion in 1987. Profit declines were recorded for upstream, other Canadian operations and foreign operations while improvements were shown in this group's small downstream segment.

The impact of lower oil and gas prices resulted in gross upstream revenues decreasing 11% to $10.6 billion (Appendices B3 to B5). The decline in the group's net income reflected not only the lower revenues but also higher operating costs and increased non-cash charges (including deferred income taxes) which more than offset lower interest expenses, royalties and current income taxes.

A technical decline in net income for the 'other Canadian operations' of oil and gas producers was due to accrued equity earnings and the sale of assets which were reported as negative non-cash items in 1987 not being repeated in 1988.

Table 4.
Net Income by Company Group in billions of dollars

	1987	1988	Change	Change %
Integrateds and Refiners				
Upstream	1.0	0.4	-0.6	-59
Downstream	0.8	1.4	0.6	59
Other[a]	0.1	–	-0.1	-54
Total Integrateds and Refiners	**1.9**	**1.8**	**-0.1**	**-6**
Oil and Gas Producers				
Upstream	1.2	0.5	-0.7	-56
Downstream	0.1	0.1	–	111
Other[a]	0.2	–	-0.2	-96
Total Producers	**1.4**	**0.6**	**-0.8**	**-55**
Total Industry	**3.3**	**2.4**	**-0.9**	**-27**

Note:
(a) Comprises net income generated by foreign activities and other Canadian operations. For more detail see Appendices B2 and B5.

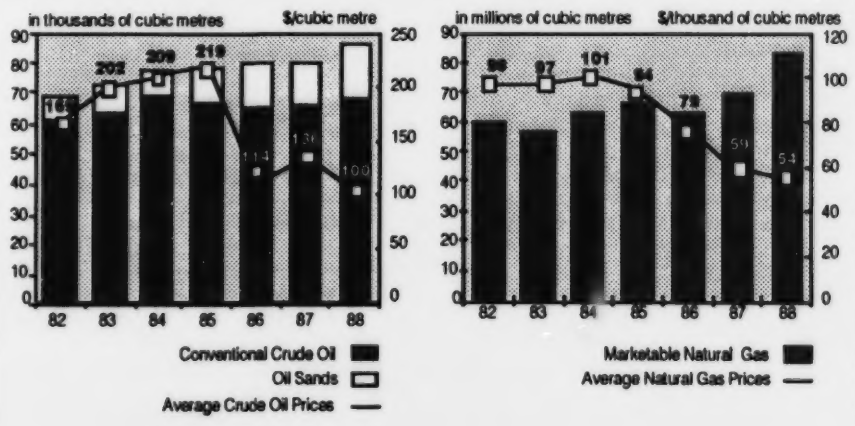
Upstream Segment

Revenues from upstream operations fell 12% to $15.7 billion in 1988 (Appendix B1). The impact of increased crude oil production (up 5%) was offset by lower realized crude oil prices[1] in 1988 resulting in a revenue reduction for crude oil of $2.5 billion. However, a 20% rise in the production of marketable natural gas more than offset the impact of gas price declines and caused natural gas revenues to increase $365 million. Sulphur revenues remained unchanged as a 4% rise in production just offset lower prices.

The average price received for crude oil (including production from oil sands) during 1988 was 27% lower than in 1987 – $100 per m^3 ($15.80 per bbl) vs. $136 per m^3 ($21.60 per bbl). Prices for natural gas declined 9% in 1988 to an average of $54 per 10^3m^3 ($1.52 per Mcf) from $59 per 10^3m^3 ($1.67 per Mcf) in 1987. Average crude oil and natural gas prices for 1988 were at their lowest levels in nearly a decade (Appendices A4 and A5).

(1) Lower crude oil and natural gas prices realized by Canadian producers are a reflection of both a lower international price and a stronger Canadian dollar relative to the U.S. dollar. International oil prices are generally quoted in U.S. dollars and, as the Canadian dollar strengthens, the Canadian dollar value of oil prices declines.

Chart 3.
Oil and Gas Production and Prices: 1982 – 1988



Upstream net income dropped 58% or $1.2 billion to $895 million in 1988. The 12% decline in revenues coupled with higher operating costs (including general and administrative) of $685 million (up 14%), and higher non-cash charges of $660 million (up 15%) were instrumental in reducing upstream profits. Unit operating costs remained virtually unchanged in 1988 over 1987 indicating that higher costs resulted from higher production volumes (Appendix B8). Partly offsetting the expense increases were lower current income taxes of $40 million, down 97% from $1.1 billion in 1987, and reduced royalties of $535 million, down 18% (Appendix B1). Internal cash flow for the upstream segment, unaffected by non-cash charges and deferred income taxes, declined 15% or $1 billion to $5.8 billion (Appendices A21 and B1).

Canadian-controlled companies reported a decrease of $200 million (22%) to $720 million in upstream net income. An extraordinary gain from the sale of assets of $385 million in 1988 considerably moderated the profit decline. However, prior to extraordinary items net income fell 64%. Profits were negatively affected by higher operating costs (up 16%) and non-cash charges (up 17%) which more than offset lower current income taxes and royalties. Cash flow decreased 16% to $2.4 billion in 1988 (Appendix B6).

Foreign-controlled companies upstream profits fell 85% ($1 billion) to $175 million due to lower revenues, higher operating costs and increased non-cash charges. Cash flow decreased by 14% to $3.5 billion in 1988 over 1987.

The difference in the rates of decline between Canadian– and foreign–controlled companies is due to the former group having a greater percentage of its revenues coming from the production of natural gas, 49% vs. 40% for foreign-controlled companies (Appendix B8). Natural gas, which experienced a lesser price decline in comparison to crude oil, benefitted from significant increases in demand.

Table 5.
Upstream Financial Performance in billions of dollars

	1987	1988	Change	%
Total Revenues	**17.9**	**15.7**	**– 2.2**	**– 12**
less:				
Operating Costs	5.1	5.8	0.7	14
Interest	1.6	1.3	– 0.3	– 18
Royalties, Taxes	3.0	2.5	– 0.5	– 18
Other Expenses	4.6	5.3	0.7	15
Income Before Taxes	**3.5**	**0.8**	**– 2.7**	**– 79**
Current Taxes	1.1	–	– 1.1	– 97
Deferred Taxes	0.4	0.2	– 0.2	– 42
Net Income before Unusual Items	2.0	0.5	– 1.5	– 76
Unusual Gains	0.1	0.4	0.3	215
Net Income	**2.1**	**0.9**	**– 1.2**	**– 58**

Downstream Segment

Oil Products Operations

Revenues from refining and marketing of oil products decreased 5% to $23.1 billion in 1988 mainly as a result of a 14% decline in cost of goods sold (i.e. feedstock costs). The revenue decline occurred despite higher sales volumes and the flow through to consumers of higher federal sales and excise taxes, up 9%.

Net income rose 35% ($230 million) to $880 million in 1988. Reduced cost of goods sold, deferred income taxes and interest charges more than offset the impact of higher expenses in all other categories, thus resulting in higher profits for the year.

Cash flow for oil products operations increased 17% or $220 million to $1.5 billion in 1988 over 1987 (Appendix B9).

Gross profit margins, defined here as the difference between average sales revenue, direct taxes and cost of goods sold, increased tc 6.5¢ per litre in 1988 from 6.1¢ per litre in 1987. The improvement was the result of greater demand for oil products and lower feedstock costs (Appendix A22).

Average crude oil refiner acquisition costs by region and related transportation costs are shown in Appendices A6 and A7.

Table 6.
Oil Products: Financial Performance and Profit Margins

	1987		1988		Change
	$ millions	¢/litre	$ millions	¢/litre	¢/litre
Gross Sales	23856	28.81	22372	26.38	– 2.43
Other Revenue	600	0.72	773	0.91	0.19
Total Revenue	**24456**	**29.53**	**23146**	**27.29**	**– 2.24**
less:					
Federal Sales and Excise Taxes	3961	4.78	4318	5.09	0.31
Cost of Goods Sold	15466	18.67	13345	15.73	– 2.94
Gross Profit Margins	**5030**	**6.07**	**5483**	**6.46**	**0.39**
less:					
Distribution, Selling and Administration Expenses	3275	3.95	3406	4.02	0.06
Cash Income before Interest and Current Taxes	**1755**	**2.12**	**2076**	**2.45**	**0.33**
Interest Expenses	73	0.09	56	0.07	– 0.02
Current Income Taxes	384	0.46	502	0.59	0.13
Cash Income after Current Taxes	**1298**	**1.57**	**1519**	**1.79**	**0.22**
Depreciation and Other Non-Cash Charges	531	0.64	585	0.69	0.05
Deferred Income Taxes	133	0.16	87	0.10	– 0.06
Extraordinary Gains	18	0.02	35	0.04	0.02
Net Income after Extraordinary Items	**653**	**0.79**	**882**	**1.04**	**0.25**

Other Downstream Operations

Net income from other downstream operations, mainly petrochemicals, more than doubled (up $340 million) to $595 million in 1988 over 1987, largely the result of greater demand. Internal cash flow increased 94% to $820 million (Appendix B9).

Total Downstream

The combined revenue of petroleum products and petrochemical operations decreased 2% to $27 billion. Combined net income rose 63% to $1.5 billion in 1988 from $905 million in 1987 and cash flow increased 36% ($615 million) to $2.3 billion.

Other Canadian Operations

This business segment, which includes corporate income and expenses, recorded a profit of $125 million in 1988 compared with $225 million in the previous period. In 1987, sizeable intersegment eliminations which occurred in current income taxes (reported as negative current taxes) and large amounts of accrued equity income (reported as negative non-cash charges) improved net income for that period. However, as this was not repeated in 1988, net income declined in comparison. Cash flow, unaffected by write-offs and non-cash charges, rose from $365 million in 1987 to $380 million in 1988.

As noted in previous Monitoring Reports, many companies treat financing activities, and thus interest expense, as a corporate function – by definition included in 'other Canadian operations'. Although a larger number of companies now allocate interest charges to other segments, 28% of the industry's total interest expenses remain charged to this segment which accounts for only 6% of total industry revenues.

Foreign Operations

Net income on foreign operations dropped from a profit of $75 million in 1987 to a loss of $70 million in 1988. Foreign activities of Canadian petroleum companies tend to be oil and gas production operations. Accordingly, the decline in net income reflected the same factors that applied generally to Canadian upstream operations. Cash flow declined 5% to $465 million.

Table 7.
Downstream Financial Performance by Subsegment in millions of dollars

	Net Income			Cash Flow		
	1987	1988	Change %	1987	1988	Change %
Oil Products	653	882	35	1298	1519	17
Petrochemicals	254	595	134	424	821	94
Total Downstream	907	1477	63	1723	2340	36

2

Sources and Uses of Funds[1]

Overview

Funds available to the petroleum industry prior to 'discretionary uses' increased $2.6 billion or 36% to $9.7 billion in 1988 as a result of a rise of $3 billion in net external sources more than offsetting a decrease in internal cash flow of $400 million. Net external sources for 1988 provided $700 million vs. an outflow of $2.3 billion in 1987.

Redemptions of long-term debt exceeded new issues by $460 million compared with $3.7 billion of net redemptions in 1987. In that year, a number of companies reduced debt through reorganizations (debt, together with assets, was transferred to other industries and no longer included within the petroleum company consolidation) and through the sale of assets. Also, a number of companies paid off debt after the sale of assets. In 1988, asset sales were instrumental in reducing long-term debt. The 1988 net decrease in debt, shown in Table 8, does not include the sizeable reduction of long-term debt resulting from the renegotiation of debt owed to a number of banks by a Canadian-controlled company prior to it being taken over by a foreign-controlled company. New equity, net of repurchases,was $1.1 billion in 1988 compared with $1.4 billion in 1987.

In 1988, net capital outlays were 22% higher at $8.6 billion. Dividend payments rose 60% from $1.5 billion to $2.5 billion. The excess of 'All Other Sources' over 'All Other Uses' in 1987 resulted from the transfer of investments due to the reorganization of corporate activities and the sale of assets. In 1988, higher 'All Other Uses' resulted from the purchase of assets.

The net draw-down of working capital of $3.4 billion in 1988 contrasted with the unchanged position in 1987. The 1988 draw-down of working capital was in part due to short-term borrowing by a large Canadian–controlled company to finance the redemption of preferred shares. In addition, dividends declared (but not paid in 1988) and long-term debt becoming due for a number of companies entering receivership led to an increase in short-term liabilities, and hence a reduction in working capital (Appendix B10).

(1) Sources and uses of funds for an individual company are reported to the PMA on a net basis. For example, a company raising and repaying debt would report only the net amount. Similarly, companies report only the net amount with regard to changes in equity and in working capital. For the industry as a whole, the PMA continues this process of netting the aggregates to show the industry's net draw of funds from, or net contribution of funds to, other sectors of the economy. However, to allow the reader to distinguish at the aggregate level between new long-term debt and repayment of debt, etc., these aggregates are shown separately in Table 9.

Table 8.
Sources and Uses of Funds (Net) in billions of dollars

	1987	1988	Change	Change %
Internal Sources				
Net Income before Unusual Items	3.2	2.1	– 1.1	– 35
Non-cash Item	6.2	6.9	0.7	11
Internal Cash Flow	**9.4**	**9.0**	**– 0.4**	**– 4**
Net External Sources				
New Long-term Debt, Net of Repayments	– 3.7	– 0.5	3.2	–
New Equity, Net of Repurchases	1.4	1.1	– 0.3	– 17
Net External Sources	**– 2.3**	**0.7**	**3.0**	**–**
Net Sources	**7.1**	**9.7**	**2.6**	**36**
Discretionary Uses				
Net Capital Expenditures	7.0	8.6	1.6	22
Dividend Payments	1.5	2.5	1.0	60
All Other Uses, Net of Other Sources	– 1.5	2.0	3.5	–
Net Uses	**7.1**	**13.0**	**5.9**	**84**
Net Working Capital Change	**–**	**– 3.4**	**– 3.4**	**–**

Sources and Uses of Funds (Gross)

In 1988, external funds came from a variety of sources, but were not as large in value as related uses. New long-term debt was $2.2 billion, up $1.3 billion, and repayment of debt declined 41% or $1.9 billion to $2.7 billion. New share issues rose $540 million to $2.3 billion, while equity reductions rose to $1.2 billion in 1988 mainly as a result of redemptions of preferred shares.

Reported individual increases of working capital totalled $1.5 billion in 1988, down $580 million from $2 billion in 1987. Individually reported decreases in working capital amounted to $4.8 billion in 1988 compared to $2 billion in 1987.

The decline in 'all other sources' in 1988 compared to 1987 reflects mainly the unusually high value reported by a major Canadian-controlled company following a reorganization in 1987. Funds reported in 1988 under 'all other sources' represent, in part, proceeds from the sale of oil and gas properties sold in order to reduce debt. Funds used for the purchase of assets increased to $2.3 billion in 1988 from $790 million in 1987.

Net capital expenditures, the largest component of 'uses of funds', increased 22% ($1.6 billion) to $8.6 billion (for further detail see Table 13).

Table 9.
Selected Categories of Sources and Uses of Funds in billions of dollars[a]

	1987	1988	Change	Change %
New Long-term Debt[b]	0.9	2.2	1.3	147
Repayment of Long-term Debt[d]	4.6	2.7	-1.9	-41
Long-term Debt, Net of Repayments	**-3.7**	**-0.5**	**3.2**	**-**
New Equity[b]	1.8	2.3	0.5	30
Repurchase of Equity[d]	0.4	1.2	0.8	182
Net Equity, Net of Repurchases	**1.4**	**1.1**	**-0.3**	**-17**
Working Capital Increase[d]	2.0	1.5	-0.5	-28
Working Capital Decrease[b]	2.0	4.8	2.8	138
Net Working Capital Change	**-**	**-3.4**	**-3.4**	**-**
All Other Sources[c]	7.6	4.4	-3.2	-43
All Other Uses[e]	6.1	6.3	0.2	3
Other Uses Net of Other Sources	**-1.5**	**2.0**	**3.5**	**-**
Total Capital Outlays	7.6	9.0	1.4	19
CEDIP, PIP and Other Incentives	0.5	0.4	-0.1	-16
Net Capital Expenditures	**7.0**	**8.6**	**1.6**	**22**

Notes:
(a) Appendix B10 shows more detail.
(b) Represents amounts of new long-term debt, new equity, or funds from drawing down working capital by those companies that reported deriving net funds from these sources.
(c) Includes unusual gains; unusual losses are included in 'All Other Uses'.
(d) Represents the net application of funds to repay long-term debt, repurchase equity, or to build up working capital by those companies that reported using funds for these purposes.
(e) Mainly funds for acquisitions of plant and property from other corporations and for corporate takeovers.

Internal Cash Flow

Petroleum industry internal cash flow decreased $400 million or 4% to $9 billion in 1988 due primarily to lower crude oil and natural gas prices, higher sales and excise taxes, and increased operating costs (including general and administrative expenses). The upstream segment recorded a decrease of 15% ($1 billion) to $5.8 billion. In contrast, cash flow from downstream operations rose 36% ($615 million) to $2.3 billion, due to increased sales in the petrochemical segment and higher profit margins in the oil products segment. Cash flow of 'other Canadian operations' increased 3% from $365 million in 1987 to $380 million in 1988, while that from foreign activities declined 5% to $465 million.

Canadian-controlled companies' internal cash flow decreased 3% to $3.6 billion largely as a result of a weak upstream operations performance which more than offset the stronger performance of downstream and other Canadian operations.

Foreign-controlled firms' cash flow was down 5% to $5.4 billion, with lower cash flow from all operations with the exception of downstream activities.

Table 10.
Internal Cash Flow by Sector and Segment in billions of dollars[a]

	1987	1988	Change	%
Canadian-Controlled Companies				
Upstream	2.8	2.4	-0.4	-15
Downstream	0.6	0.9	0.3	43
Other[b]	0.4	0.4	-	11
Total Canadian-Controlled	**3.8**	**3.6**	**-0.2**	**-3**
Foreign-Controlled Companies				
Upstream	4.0	3.5	-0.5	-14
Downstream	1.1	1.5	0.4	32
Other[b]	0.3	0.2	-0.1	-5
Total Foreign-Controlled	**5.6**	**5.4**	**-0.2**	**-5**
Total Industry				
Upstream	6.8	5.8	-1.0	-15
Downstream	1.7	2.3	0.6	36
Other[b]	0.9	0.8	-0.1	-1
Grand Total	**9.4**	**9.0**	**-0.4**	**-4**

Notes:
(a) See Appendix B1, B6 and B7 for more detail.
(b) Comprises internal cash flow generated by foreign activities and other Canadian operations.

Incentive Grants and Tax Credits

On March 25, 1987, the Government of Canada announced the establishment of the Canadian Exploration and Development Incentive Program (CEDIP) to provide direct assistance to the industry in respect of capital expenditures in the upstream segment. The level at which grants were earned was reduced in October 1988 to 25% from 33 1/3% of eligible capital expenditures. Some Petroleum Incentives Program (PIP) grants continued to be available in 1987 and 1988 as commitments made under agreements existing at the time of the March 31, 1986 termination were exempted.

Total grants declined from $292 million in 1987 (partly PIP grants) to $271 million (mainly CEDIP grants) during 1988. Canadian-controlled companies received 57% of the grants in 1988, compared with 59% of the total in 1987.

Table 11.
Incentive Grants by Area and Sector in millions of dollars

	Canadian-Controlled		Foreign-Controlled		Total	
	1987	1988	1987	1988	1987	1988
Provinces	124	149	76	116	200	265
Canada Lands	48	6	45	–	93	6
Total Canada	171	155	121	116	292	271

Note:
Appendix A17 provides additional detail.

Exploration expenses for wells costing more than $5 million attract the Exploration Tax Credit (ETC) at a rate of 25% of eligible expenses. These credits together with the Investment Tax Credit (ITC) declined to $101 million in 1988 from $107 million in 1987. Decreases stemming from lower credits for the provinces more than offset higher ETC's accruing on Canada Lands.

Table 12.
Exploration and Investment Tax Credits in millions of dollars

	Canadian-Controlled		Foreign-Controlled		Total	
	1987	1988	1987	1988	1987	1988
Provinces	22	21	62	32	84	53
Canada Lands	20	31	4	17	24	48
Total Canada	41	52	66	49	107	101

Capital Expenditures

Gross capital expenditures in 1988 increased $1.4 billion or 19% to $9 billion, with domestic expenditures increasing 19% and outlays abroad rising 18%. Expenditures abroad as a share of total capital spending were down slightly to 6% from 7% in 1987. Upstream expenditures remained the largest component of total capital outlays, accounting for 74% in 1988 vs. 73% in 1987. All components of the upstream sector recorded increases. Downstream, energy mining and non-specified expenditures rose as well.

Table 13.
Capital Expenditures in billions of dollars[a]

	1987	1988	Change	%	Share of Total 1987 %	Share of Total 1988 %
Upstream						
Exploration	2.7	3.0	0.3	11	35	33
Development	1.1	1.3	0.2	19	14	14
Production	1.2	1.6	0.4	31	16	18
Non-conventional[b]	0.5	0.8	0.3	54	7	9
Total Upstream[c]	**5.5**	**6.7**	**1.2**	**21**	**73**	**74**
Downstream	1.2	1.3	0.1	10	16	15
Energy Mining	–	0.1	0.1	86	1	1
All Other	0.3	0.3	–	11	4	4
Total Expenditures in Canada	**7.1**	**8.4**	**1.3**	**19**	**93**	**94**
Expenditures Abroad	**0.5**	**0.6**	**0.1**	**18**	**7**	**6**
Total Expenditures	**7.6**	**9.0**	**1.4**	**19**	**100**	**100**
Incentive grants and other receipts	0.5	0.4	– 0.1	– 22		
Net Capital Expenditures	**7.1**	**8.6**	**1.5**	**22**		
Memo Items:						
Upstream Capital Expenditures (Net of incentive grants and other receipts)	5.0	6.3	1.3	25		

Notes:
(a) More detail is presented in Appendix B11 and B12.
(b) Includes oil sands and non-conventional heavy oil products.
(c) Includes CEDIP and CEIP incentives, and other receipts.

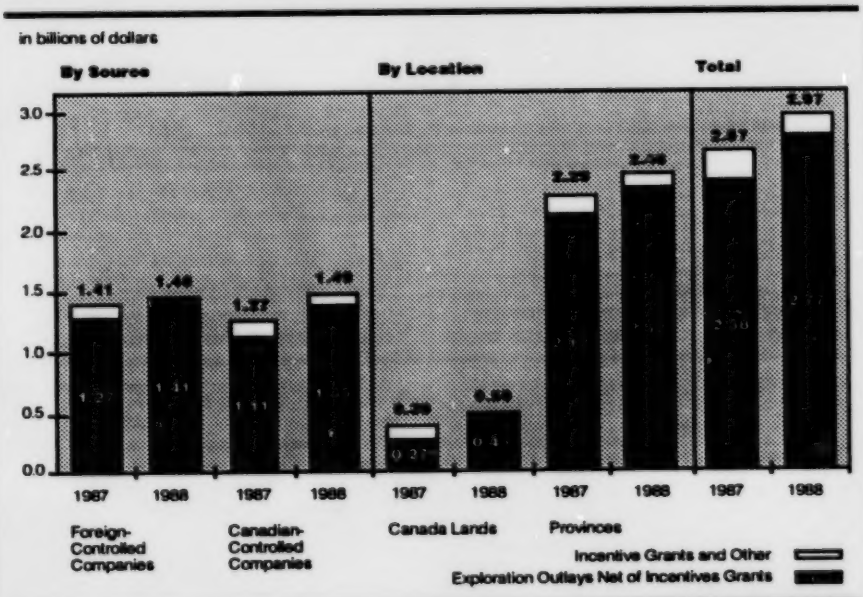
Upstream: The strengthening of crude oil prices through 1987 after the dramatic downturn in 1986, together with the provision of incentives such as the Canadian Exploration and Development Incentives Program (CEDIP) and the Alberta government's three-year royalty holiday on new discoveries prior to November 1, 1988 encouraged the industry to increase upstream exploration and development activities in the first half of 1988. However, the continuing slide of crude oil prices in 1988 caused companies to reduce expenditures in the second half of the year – by comparison to the usual seasonal pattern. The net result was still a rise in overall upstream outlays by 21% ($1.2 billion) to $6.7 billion in 1988 over 1987. Spending in all categories of upstream activity rose.

Net of incentive grants, upstream outlays by Canadian-controlled companies increased 28%, while those of foreign-controlled companies rose 24%. As a result, the Canadian-controlled group of companies' share of capital spending increased 0.9 percentage points to 43.4% of the total (Appendix B11).

Exploration expenditures rose 8% to $2.5 billion in the provinces, and increased 31% to $505 million on Canada Lands. This produced a rise of 11% in total exploration spending to $3 billion. Expenditures on Canada Lands accounted for 17% of the total vs. 14% in 1987, with most areas of Canada Lands experiencing increased activity.

Exploration outlays by foreign-controlled companies were 5% higher in 1988, while those for Canadian-controlled firms were up by 17%. Canadian-controlled companies accounted for 50% of total exploration spending.

Chart 4.
Exploration Expenditures in Canada



Downstream Expenditures: Downstream outlays rose 10% to $1.3 billion in 1988 due to increased expenditures on pipelines and marketing outlets. These expenditures more than offset declines in spending on petrochemical plants and refineries.

Energy Mining and All Other: Expenditures were higher in energy mining, as well as in all other areas including those for mining facilities, drilling ships, caissons, and drilling rigs. This category of capital outlays also includes capitalized interest charges related to pre-start-up project expenditures.

Reinvestment Rates

The overall reinvestment rate for the petroleum industry – i.e. total net capital expenditures(1) as a percentage of internal cash flow from all business segments was 95% in 1988, up from 75% in 1987.

The relative stability and partial recovery of crude oil prices throughout 1987 following the 1986 collapse of prices and the subsequent slump in activity provided the necessary impetus to increase capital outlays. With renewed optimism that crude oil prices would rest, on average, at near or above 1987 levels, and with the encouragement through federal and provincial incentives programs, the petroleum industry committed itself to new capital projects. The largest capital expenditure increases occurred in high cost areas such as oil sands (up 54%) and on Canada Lands (up 31%).

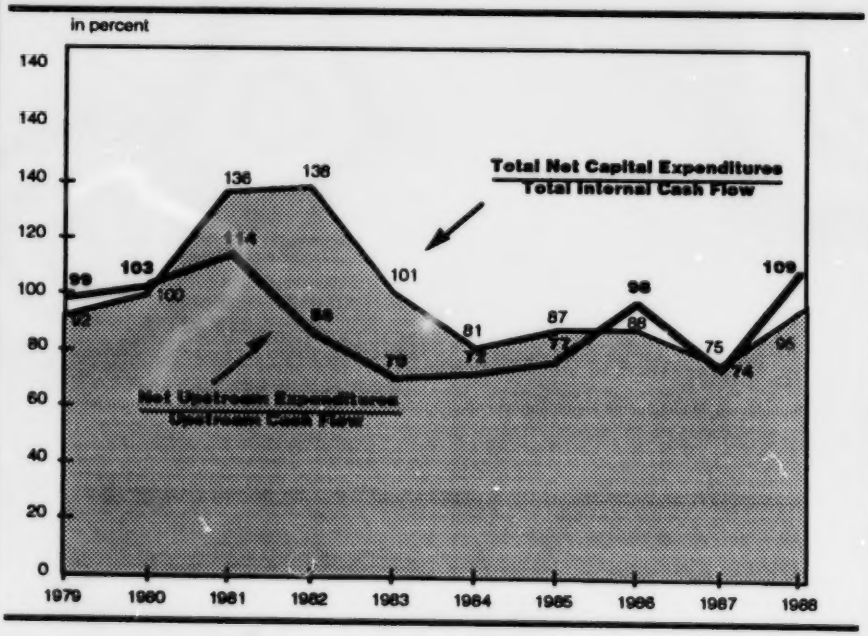
However, since prices for crude oil and natural gas declined soon after the project plans had been made, internal cash flow did not rise in accordance with industry expectations. Thus, while the industry as a whole experienced an increase in the reinvestment rate of 20 percentage points, the 95% reinvestment rate could be viewed as abnormally high, just as the 75% rate of 1987 was low in relation to realized cash flow.

Both Canadian- and foreign-controlled groups reported major overall increases in their reinvestment rates. Canadian-controlled companies total reinvestment rate rose from 84% in 1987 to 109% in 1988, while that for foreign-controlled companies increased from 69% to 86%. A comparison of the two groups in terms of upstream activities gives similar results, with Canadian-controlled companies reinvesting 116% of upstream cash flow (up 39 percentage points) vs. 103% for foreign-controlled firms (up 31 percentage points).

Upstream capital expenditures (net of incentive grants) accounted for 109% of industry upstream cash flow, up 35 percentage points from 1987. Upstream cash flow decreased 15%, while net upstream capital expenditures rose 25%.

(1) Net capital expenditures is defined as capital expenditures less incentive grants and insurance receipts.

Chart 5.
Reinvestment Rates



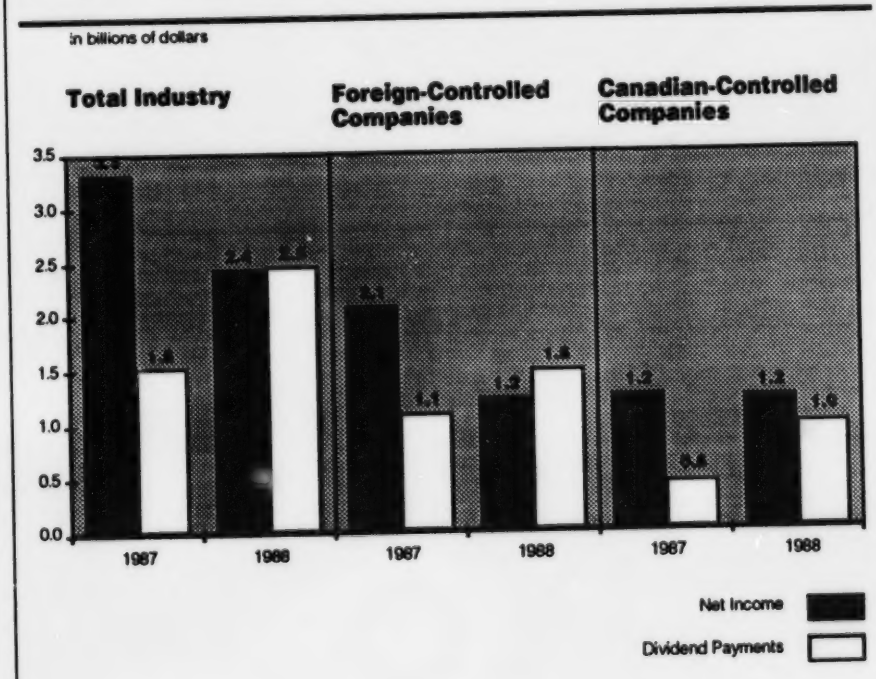
Dividend Payments

Dividend payments by the petroleum industry rose 60% to $2.5 billion in 1988, while net income declined 27% from $3.3 billion to $2.4 billion. As a result, the industry payout rate rose from 46% in 1987 to 102% in 1988.

Dividends paid by Canadian-controlled companies more than doubled to $985 million for a payout rate of 81% in 1988, while dividend payments by foreign-controlled companies rose 36% to $1.5 billion, a payout of 122%.

The increase in dividends resulted from a declaration of a large dividend by a foreign-controlled company prior to being purchased by another firm. In addition, a number of Canadian-controlled companies without a history of paying dividends declared relatively large payments prior to the occurrence of major changes to their corporate structures (Appendices A20 and B1).

Chart 6.
Dividend Payments Compared with Net Income



3

Comparative Performance: Petroleum and Other Industries

Net Income Comparison

The petroleum sector's financial performance can be put into perspective by comparing it to other sectors of the economy using data from Statistics Canada.(1) The purpose is to indicate the relative and changing importance of the petroleum industry in the total net income picture of all non–financial industries.(2)

Exclusive of Crown corporations, the petroleum industry's net income from Canadian operations after extraordinary items decreased 15% to $2.7 billion in 1988, compared with a 27% increase to $24.2 billion for all other non-financial industries. Chart 7 shows that the petroleum industry's net income in 1988 represented 10% of all non-financial industries' net income. Although this compares favourably against the particularly poor results in 1986, it is still well below the level of prior years.

By comparison, the net income of $24.2 billion for all other non-financial industries represents the second consecutive record high for a one–year period.

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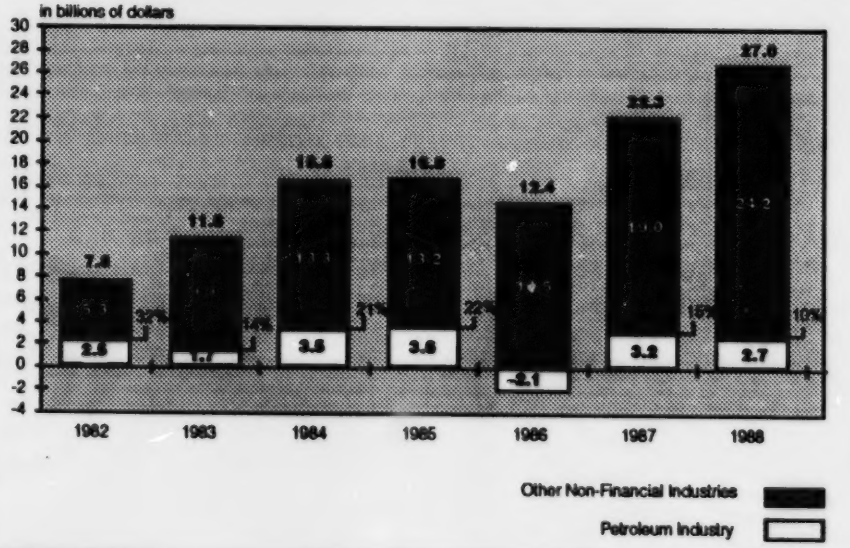
(1) The data given in this section of the report are not precisely comparable with those presented elsewhere although they are close to results based on the PMA survey which are reported in Chapters 1 and 2. Petroleum industry data from Statistics Canada, while covering a greater number of companies than the PMA survey, exclude government business enterprises as well as the foreign activities of companies originating in Canada. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, subject to a minimum size in terms of assets and revenues.

(2) Included here are manufacturing, mining, services, utilities, etc.

Chart 7.

Comparison of Net Income – Petroleum Industry vs. All Other Non-Financial Industries



Capital Expenditures

Based on Statistics Canada data, petroleum industry gross capital expenditures (i.e. before deducting incentive grants) increased 33%(1) in 1988 over 1987. As already mentioned, the rise in expenditures for the petroleum industry was in part due to companies taking advantage of government incentive programs such as CEDIP prior to the benefits being reduced. In addition, the Alberta government's three-year royalty holiday on new discoveries was expected to be cut back to one year by November 1, 1988. However, on October 31, Alberta's Energy Minister announced an extension and retention of the current terms of the royalty tax credit program.

Capital expenditures of other non-financial industries increased 12%, largely the result of greater strength in the mining sector. Accordingly, the capital expenditures of the petroleum industry as a proportion of total capital expenditures of all non-financial industries increased by 3 percentage points to 21% in 1988.

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(1) These data differ significantly from that published in Chapter 2 due to the fact that Statistics Canada data include here some acquisitions in the category of capital expenditures.

Table 14.
Comparison of Capital Expenditures – Petroleum Industry vs. All Other Non-Financial Industries in billions of dollars

	1987	1988	Change	%
1. Manufacturing	11.0	12.1	1.1	10
2. Mining	2.9	3.7	0.8	26
3. **Other Non-Financial**	**17.7**	**19.6**	**1.9**	**11**
4. **Total Non-Financial** excluding Petroleum	**31.6**	**35.4**	**3.8**	**12**
5. Petroleum	7.0	9.3	2.3	33
6. **Total Non-Financial** including Petroleum	**38.7**	**44.7**	**6.1**	**16**
7. Line 5 as a % of line 6	18	21		

Source:
Statistics Canada, 61-003, *Industrial Corporations – Financial Statistics*. This survey does not include government enterprises. Expenditures are gross, including capital grants.

4

Ownership and Control Trends

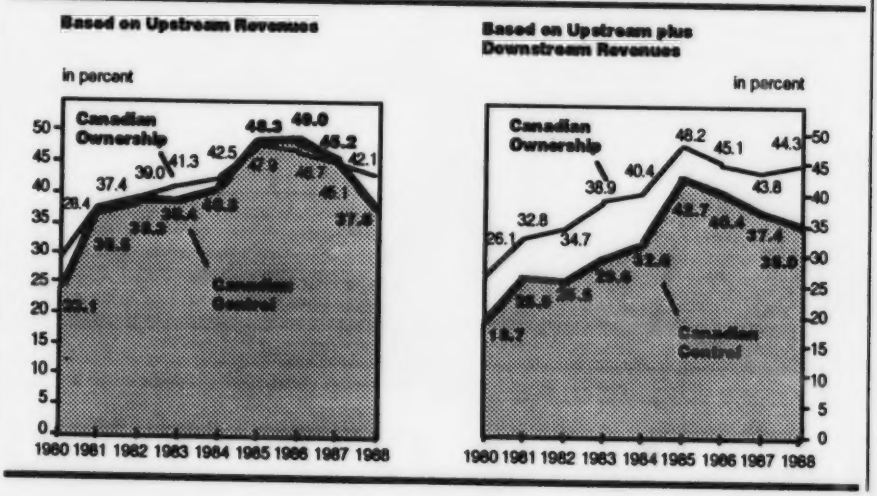
Changes in the ownership and control structure of the petroleum industry continued in 1988 following on the heels of an active 1987. A number of petroleum companies were purchased, in whole or in part, by other firms leading to changes in the level of Canadian ownership and control of the industry. Of particular importance in 1988 were the takeover of Dome Petroleum Limited by Amoco Canada Petroleum Company Ltd., the partial purchase of Bow Valley Industries Limited by British Gas and the takeover of Canterra Energy Ltd. by Husky Oil Ltd.

Canadian ownership of upstream revenues decreased to 42.1% in 1988 from 45.1% in 1987 (down 3 percentage points) while Canadian control fell from 45.2% to 37.6% in 1988 (a decline of 7.6 percentage points). The difference between the rates of decline in Canadian ownership and Canadian control was due, in part, to the relatively small amount of equity held by Canadians prior to the takeover of one Canadian-controlled company. In addition, because the takeovers in two other companies were partial in nature, they affected the ownership measure less than that of control.

Partly offsetting the negative influence of takeover activity on the levels of Canadian ownership and control, were two factors:
- revenues for foreign-controlled companies declined by 14% compared with a 9% drop for Canadian-controlled companies, thereby, having a positive effect on the level of Canadian control; and
- the increase of Canadian participation in a number of large publicly traded integrated foreign-controlled companies had a positive impact on the Canadian ownership rate.

About 1 percentage point of the decline in the Canadian ownership of upstream revenues shown for 1988 is attributable to closer scrutiny of the ownership of shares held in Canada in the 'book-based system' (BBS). The rapid growth of nominee accounts held in this system – primarily at the Canadian Depository for Securities (CDS) – has in many cases obscurred beneficial ownership. Analysis of the CDS position of a number of reporting companies indicates that a portion of these holdings, previously accorded Canadian ownership status, are beneficially owned by non-Canadians. This fact would also apply for years prior to 1988, but the extent of this cannot be quantified.

Chart 8.
Canadian Ownership and Control of the Petroleum Industry



Canadian ownership of upstream plus downstream revenues rose one–half of one percentage point to 44.3% in 1988, while Canadian control fell 2.4 percentage points to 35%.

The increase in the level of Canadian ownership of upstream plus downstream revenues was largely the result of an elimination of a minority position held by a foreign–controlled company in a large Canadian–controlled company which had significant downstream revenues. Also, as noted previously, the increased Canadian participation in the equity of two foreign–controlled integrated companies raised Canadian ownership of upstream plus downstream revenues. The decline in Canadian control, however, was due to takeovers.

Table 15.
Ownership and Control by Country and Sector in percent[a]

	Ownership		Control	
	1987	1988	1987	1988
United States	40.6	39.8	44.0	44.7
Other Foreign	15.6	15.9	18.6	20.3
Total Foreign	**56.2**	**55.7**	**62.6**	**65.0**
Canadian Public Sector	15.9	15.9	15.5	15.9
Canadian Private Sector	27.9	28.4	21.9	19.0
Total Canadian	**43.8**	**44.3**	**37.4**	**35.0**

Note:
(a) Based on upstream plus downstream ('petroleum-related') revenues using ownership data as at year-end 1988.

5

Research and Development Activities: 1988 vs. 1987

A total of 23 PMA companies, mostly larger firms, reported R&D expenditures in 1988, compared to 24 in 1987. In total, these companies spent $286 million on R&D activities in 1988, up 24% from 1987.(1) During 1988, 'in-house' R&D expenditures grew by 32%, while contract work performed by others rose by 10% to $97 million.

'In-house' Expenditures

Petroleum industry 'in-house' R&D expenditures in 1988 were up from $143 million in 1987 to $189 million in 1988. Expenditures of a current nature increased to $144 million or by 17%, of which the wages and salaries component increased 26% to $75 million. The balance ($45 million) of total 'in-house' expenditures was spent on capital goods, primarily R&D equipment ($27 million) and buildings ($18 million). The capital expenditures component increased 121% over 1987 levels.

Refinery technology R&D remained the largest single component of 'in-house' R&D expenditures at 31%, increasing in absolute terms by $4 million to $58 million. The second largest component, in-situ recovery of heavy oil, increased $14 million to $49 million.

R&D expenditures related to conventional crude oil and natural gas increased to $44 million (vs. $32 million in 1987), representing 23% of all 'in-house' R&D expenditures in 1988.

Energy technology R&D, other than that related to fossil fuels, grew from $10 million (or 7%) of total 'in-house' R&D expenditures by major oil and gas enterprises to $30 million (or 16%) of such expenditures in 1988. Non-energy related R&D expenditures grew from $4 million to $7 million in 1988 (Appendix A24).

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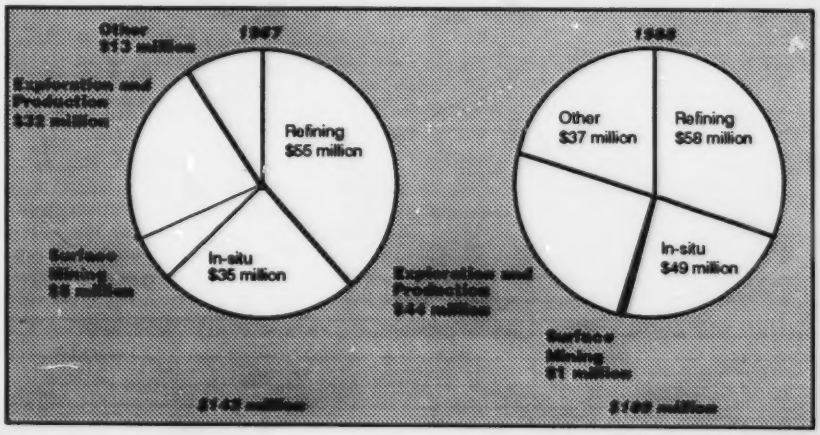
(1) Data are drawn from responses to two Statistics Canada questionnaires, *Research and Development in Canadian Industry* and *Energy R&D Expenditures by Area of Technology*, made available to the PMA under an agreement pursuant to the Statistics Act. There may be a small element of 'double counting' as the reported amount of 'in-house' R&D may include contract work performed for other petroleum companies.

Chart 9.
'In-house' R&D Expenditures by Activity



Total R&D personnel employed by the surveyed companies increased from 1108 persons in 1987 to 1142 persons. The percentage of scientists, engineers and senior R&D administrators grew by 1 percentage point to 45% of all employees engaged in R&D.

'In-house' R&D expenditures by the petroleum industry during 1987[1] were equal to 0.6% of sales, while the average for all other non-financial industries was 1.8%.

Reporting companies provided 89% of the funds allocated to 'in-house' activity. The remainder was obtained from federal and provincial government grants, contract work performed for other companies, and from allocations by parent and affiliated companies to Canadian subsidiaries.

The bulk of 'in-house' R&D activity in Canada was conducted in Alberta and Ontario (60% and 34%, respectively, of total outlays in 1988). R&D performed in Alberta during 1988 accounted for 48% of R&D personnel employment , while Ontario accounted for 50%.

Contract Expenditures

Energy and non-energy related contract R&D expenditures by PMA reporting companies totalled $97 million in 1988, increasing 10% from 1987. Research performed abroad on behalf of Canadian petroleum companies accounted for 79% of total contract R&D expenditures, a decrease of 4 percentage points over 1987.

(1) Comparable information for 1988 will not be available until 1990.

Table 16.
Contract R&D Spending in Canada and Abroad in millions of dollars

Recipient	In Canada 1987	In Canada 1988	Abroad 1987	Abroad 1988	Total 1987	Total 1988
Parent and Affiliate Companies	12	13	73[a]	73[a]	85	87
Other Corporations	2	4	–	3	2	7
Research Institutions	1	3	–	–	1	3
Totals	**15**	**20**	**73**	**77**	**88**	**97**

Note:
(a) Amounts of $37 million and $69 million represented outlays on energy-related technologies in 1987 and 1988 respectively. No breakdown is available between energy components for contract activities in Canada.

6

Ten-Year Operating Summary: 1979 – 1988

A ten–year perspective on the financial performance of the petroleum industry provides a more complete picture of its strengths and weaknesses and allows the identification of major trends.

The data presented here were derived from ten years of monitoring surveys, and are intended to provide a basis for comparing key financial and operating characteristics of the oil and gas industry over the period 1979 to 1988. Table 17 presents aggregate data for 125 reporting companies, as of the end of 1988, representing practically 100% of the PMA data base in terms of revenues. The table should be read in conjunction with Appendices A21, B17 and B18, which provide detailed data for this aggregation for each of the ten years. Appendices A4 and A5 present time series data for natural gas and crude oil prices.

Table 17.
Ten-Year Operating Summary: 1979 – 1988 in billions of current dollars

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Revenues										
Total Operations(a)	*33.6*	*44.2*	*56.4*	*57.0*	*59.1*	*63.3*	*67.0*	*47.9*	*49.7*	*46.9*
Upstream	12.7	16.1	17.5	21.0	23.8	26.7	28.0	17.0	17.9	15.7
Downstream	18.6	24.8	33.8	31.3	30.7	31.9	34.1	26.5	27.5	27.0
Internal Cash Flow										
Total Operations(a)	*7.3*	*9.6*	*8.3*	*7.4*	*8.6*	*10.7*	*11.6*	*7.7*	*9.4*	*9.0*
Upstream	5.1	6.7	5.3	5.8	7.3	8.5	9.5	5.3	6.8	5.8
Downstream	1.6	2.2	2.0	1.3	0.8	1.1	1.1	1.7	1.7	2.3
Net Income										
Total Operations(a)	*3.6*	*4.7*	*3.2*	*1.8*	*1.5*	*3.7*	*2.9*	*– 2.7*	*3.3*	*2.4*
Upstream	2.4	2.9	1.7	2.1	2.5	3.1	2.9	– 1.8	2.1	0.9
Downstream	1.0	1.5	1.3	0.4	– 0.1	0.4	0.2	0.8	0.9	1.5
Capital Expenditures										
Upstream	5.1	6.9	6.8	6.4	6.8	8.0	9.3	6.3	5.5	6.7
Downstream	0.5	0.8	2.0	2.2	1.6	0.9	0.8	0.7	1.1	1.2
Other	0.5	0.6	1.3	1.9	1.2	0.9	0.9	0.4	0.4	0.6
Total in Canada	*6.1*	*8.3*	*10.2*	*10.5*	*9.6*	*9.9*	*10.9*	*7.4*	*7.1*	*8.9*
Expenditures Abroad	0.7	1.1	1.8	1.1	0.8	0.7	1.2	0.6	0.5	0.6
Total Capital Outlays	**6.8**	**9.4**	**12.0**	**11.6**	**10.4**	**10.5**	**12.1**	**7.9**	**7.6**	**9.0**
Dividend Payments	0.8	1.0	1.2	1.1	1.3	1.4	1.8	2.6	1.5	2.5
Total Capital Employed	**34.2**	**43.9**	**60.8**	**65.7**	**70.2**	**78.2**	**81.5**	**75.0**	**75.4**	**77.3**
					in percent					
Total Reinvestment Rates(b)	92.2	100.0	136.0	138.0	101.0	80.6	87.4	88.2	74.9	95.3
Upstream Reinvestment Rates(b)	99.0	103.0	114.0	88.0	70.0	71.8	77.0	97.9	73.8	108.5
GNE Deflator	100.0	111.1	122.9	135.3	143.1	146.9	150.6	153.7	158.7	162.8

Notes:
(a) Includes 'other Canadian' and foreign operations.
(b) For definitions, see notes a and b, Appendix A15.

Noteworthy Trends

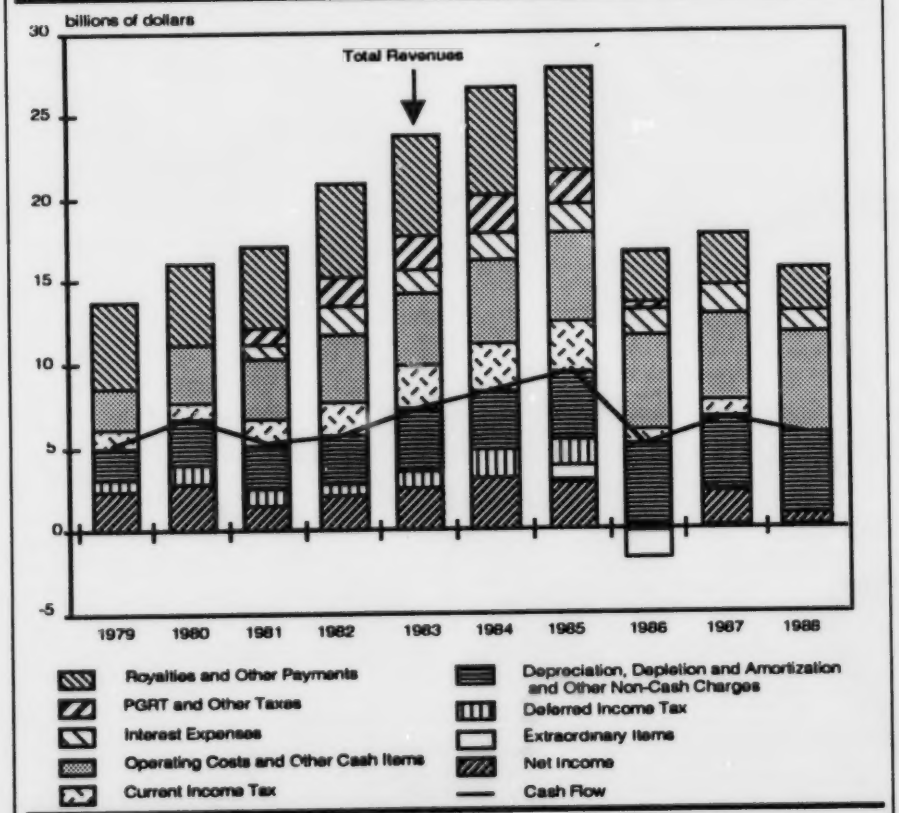
1. Total revenues of the industry are largely a function of oil and gas prices as they determine both upstream and downstream revenues. Consequently, as crude oil prices steadily rose after the 1979 oil shock, so did the industry's overall revenues — peaking at $67 billion in 1985. The decline in crude oil prices, which commenced in January 1986, to their lowest average level in nearly a decade by 1988, brought overall industry revenues down by about 30% from the 1985 high.

2. Internal cash flow, over the ten-year period ranged from a low of $7.3 billion in 1979 to a high of $11.6 billion in 1985 and stood at $9 billion in 1988. As a yardstick of the industry's health over the longer term, however, cash flow cannot be looked at in isolation due to increases in non-cash charges which reflect the consumption of capital and changes in capital employed.

3. Net income of the petroleum industry is significantly influenced not only by oil prices and related changes in production and in royalty rates, and energy taxes, but also by non-cash charges such as depletion, depreciation and amortization. The timing of such write-offs, in turn, may be affected by the application of accounting principles.

Industry net income was at its highest point in 1980 but declined as the Canadian sector of the industry was seriously affected by rising interest charges as debt grew rapidly – mainly for takeover activity. Subsequent to the imposition of new energy taxes and higher provincial royalties, net income declined steadily through to 1983, improved as a result of lower energy taxes in 1984 and 1985, and fell to a loss of $2.7 billion in 1986 — the poorest performance in recent history.

Chart 10.
Upstream Income Data: 1979 – 1988



Note:
Interest expenses are included with operating costs in 1979 and 1980.

The 1986 price declines, accompanied by increased non–cash charges for depletion, depreciation, amortization and asset write–downs by full cost accounting method practitioners as required under CICA guidelines, caused the industry to report losses in spite of the elimination of energy taxes and the reduction in royalty rates.

During 1988, crude oil and natural gas prices dropped to lows equivalent to levels in 1980, leading to a total net income of $2.4 billion. A relatively strong downstream segment in 1988, extraordinary gains of $400 million and no major write–downs were the reasons that kept the total profit picture from repeating the 1986 performance.

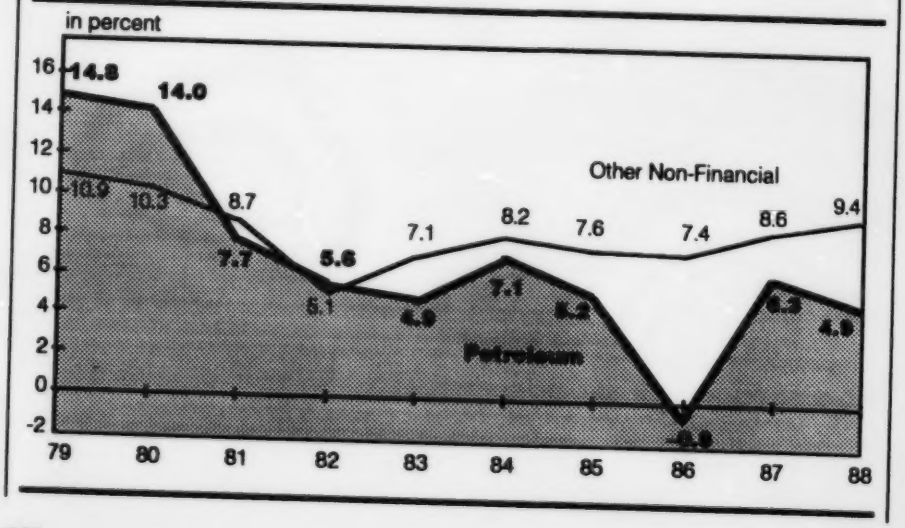
4. Total capital expenditures grew rapidly between 1979 and 1985, to reach an all time high of $12.1 billion. This increase was fuelled by intense activity on Canada Lands and abroad. The decline in crude oil and natural gas prices which started in 1986, resulted in a significant reduction in capital expenditures in 1986, 1987 and 1988 falling to levels below those of 1980.

5. The reinvestment rate for total industry rose rapidly between 1979 and 1982, as a result of the high levels of capital expenditures for both upstream and downstream activities. By 1987, they had declined to the lowest level in ten years at 75% but rebounded sharply in 1988.

6. Dividend payments rose steadily from $0.8 billion in 1979 to $1.8 billion in 1985, and reached a ten–year peak at $2.6 billion in 1986.

7. Since 1982, the rate of return on capital employed for the petroleum industry has been consistently below that for all other non–financial industries. In 1988, the return for the petroleum industry was 4.9% vs. 9.4% for all other non–financial industries (Appendix A14).

Chart 11.
Rate of Return on Capital Employed: Petroleum vs. Other Non–Financial Industries



Appendices

Appendix A Supplementary Information

A1

Year In Review

1988

Jan 26
The Minister of Energy, Mines and Resources (EMR) released a study entitled *Canada-U.S. Free Trade Agreement: An Assessment* which described the likely long run macroeconomic effects on Canada's energy sector: more secure access to the U.S. market for Canadian enargy exporters, increased availability of capital for investment in Canadian energy industries and facilitation of major energy project development to the benefit of domestic energy security.

Mar
The second issue of the *Natural Gas Monitoring Report* concluded that Alberta's domestic and export prices converged during most of the period November 1986 to October 1987 as both domestic and export prices declined. British Columbia's producers received stable prices for domestic sales. B.C. gas export prices exceeded domestic prices.

Apr 13
The Geological Survey of Canada's Institute of Sedimentary and Petroleum Geology, published under the title *Conventional Oil Resources of Western Canada (Light and Medium)*, estimates that an additional 570 million cubic metres of light and medium crude oil potentially could be discovered in Canada's Western Sedimentary Basin and concluded that a high proportion might be economically recoverable.

May 3
The Minister of Energy, Mines and Resources announced the *Canadian Exploration Incentive Program* (CEIP), an initiative within the framework of the flow-through shares plan. The Program went into effect on October 1, 1988 for oil and gas exploration and will continue until it is reviewed (renewal is possible) on December 31, 1990. It will pay over $210 million per year in total to the mining, and oil and gas industries, and is targeted to ease the financing of junior exploration companies. Eligible companies will be able to claim 30% of their exploration expenses up to a maximum of $10 million.

Jul 18
The Prime Minister of Canada and the Premier of Newfoundland signed a "Statement of Principles" with the Hibernia consortium to proceed with development of the offshore field.

Aug 4
The Minister of Energy, Mines and Resources released 'Energy and Canadians: Into the 21st Century', the report of the Advisory Committee on Energy Options.

Sep 2
The governments of Canada, Alberta and Saskatchewan signed a binding agreement with Husky Oil Ltd. to finance, build and operate a $1 billion crude oil upgrader located near Lloydminster on the Alberta-Saskatchewan border.

Sep 13
The Minister of Energy, Mines and Resources released the third monitoring report on the performance of domestic and export prices for natural gas. The report concludes that from November 1987 to April 1988, Canadian consumers of domestic natural gas production continued to benefit from prices below those available to export buyers.

A1
(continued)

Sep 22
The Government of Canada and that of British Columbia agreed on a funding formula that will assist in the construction of a natural gas pipeline making that commodity available in over 20 communities on Vancouver Island and the upper mainland coast.

Sep 24
A Statement of Principles was signed by the Government of Canada and that of Alberta and the members of the Other Six Leases Operation (OSLO) consortium to proceed with the development of the $4 billion integrated oil sands project about 80 km north of Fort McMurry in northeastern Alberta. The project when completed in 1996, is expected to produce 77,000 barrels (12,000 cubic metres) of oil per day.

Sep
The federal government announced the extension of its CEDIP incentive program. Originally scheduled to be reduced to 16 2/3% of eligible expenditures on October 1, the incentive rate was put at 25%.

Oct 31
Alberta's Energy Minister announced extension of the three-year royalty holiday and retention of the current terms of the Alberta royalty tax credit program.

1989

Jan 1
The Canada–United States Free Trade Agreement came into effect.

Mar 28
The fourth natural gas price monitoring report was released. It concluded that during the period from May to November 1988 Canadian consumers continued to benefit from domestic prices which were lower than export prices.

Apr 28
The Minister of Energy, Mines and Resources announced the early termination of the CEDIP incentive program.

A2 Petroleum Supply and Demand Summary[a] [b]

	1987	1988	Change
	thousands m^3/day		%
Production			
Crude Oil	261	273	5
Natural Gas Liquids[c]	41	43	4
Total Production	**302**	**316**	**5**
Net Exports[d]			
Crude Oil	37	41	11
Natural Gas Liquids	13	17	30
Refined Products	5	12	150
Total Net Exports	**55**	**70**	**30**
Consumption			
Natural Gas Liquids	33	37	11
Refined Products	231	241	4
Total Consumption	**264**	**278**	**5**

Notes:

(a) Petroleum includes conventional and synthetic crude oil and natural gas liquids (propane, butane and ethane) derived from gas plants and gas reprocessing plants. Data on the production, net exports and consumption do not represent a complete supply/demand balance as industry's own use and stock changes are not shown.

(b) Figures represent total industry activity and are derived from a number of sources:
- Production – Statistics Canada (Catalogue 26-006)
- Net Exports – EMR Oil Supply Branch
- Consumption – Statistics Canada (Catalogue 45-004)

(c) Does not include refinery production of 8.6 thousand m^3/d in 1988 and 8.4 thousand m^3/d in 1987.

(d) On a gross basis, crude oil imports (including exchange receipts) for 1987 and 1988 were 64,200 m^3/d and 71,100 m^3/d (404,000 b/d and 447,400 b/d) respectively, or 24% and 26% of domestic consumption in those periods.

A3 Natural Gas Supply and Demand Summary[a]

	1987	1988	Change
	millions m^3/day		%
Production			
Gross New Production	316	358	13
Less:			
Injected, Shrinkage and Adjustments	72	79	10
Indigenous Supply	244	279	14
Less:			
Producer Consumption	29	30	3
Marketable Production	**215**	**250**	**16**
Net Exports	**77**	**97**	**26**
Consumption			
Energy Use	123	136	11
Non-energy Use	11	12	9
Converted to Electricity and Other	4	5	25
Total Consumption	**138**	**153**	**11**
NEB Export Authorization	**152**	**158**	**-**

Note:

(a) Figures represent total industry activity and are derived from a number of sources:
- Production – Statistics Canada (Catalogue 26-006)
- Net Exports – EMR Oil Supply Branch
- Consumption – Statistics Canada (Catalogue 45-004)

A4 Canadian Natural Gas Prices: 1974-1988 in dollars per gigajoule

	Field Gate Including Export Flow Back	Alberta Border	Toronto City Gate	Weighted Ontario Sales Realization	Ontario Market		
					Residential	Commercial	Industrial
1974	–	0.28	0.55	0.83	1.26	0.94	0.64
1975	–	0.53	0.82	1.13	1.56	1.21	0.94
1976	0.98	0.94	1.24	1.61	2.04	1.69	1.40
1977	1.21	1.04	1.47	1.85	2.44	1.96	1.37
1978	1.44	1.28	1.77	2.14	2.74	2.22	1.90
1979	1.66	1.36	1.92	2.35	3.03	2.43	2.06
1980	2.30	1.61	2.23	2.69	3.43	2.73	2.36
1981	2.34	1.75	2.42	3.40[a]	4.24	3.41	3.03
1982	2.53	2.01	2.80	4.16[a]	4.93	4.12	3.70
1983	2.48	2.48	3.38	4.74[a]	5.72	4.78	4.15
1984	2.61	2.78	3.71	4.77	5.79	4.86	4.16
1985	2.47	2.80	3.76	4.76	5.84	4.86	4.14
1986[b]	2.32	2.80	3.78	4.73	5.79	4.81	4.04
1987	–	–	–	4.39	6.01	4.72	3.54
1988							
Jan				4.51	5.48	4.64	3.33
Feb				4.48	5.49	4.62	3.28
Mar				4.57	5.51	4.57	3.64
Apr				4.38	5.53	4.58	3.32
May				4.38	5.85	4.65	3.50
Jun				4.09	6.01	4.29	3.45
Jul				4.30	6.14	4.33	3.66
Aug				4.24	6.92	4.72	3.38
Sep				4.29	6.73	4.60	3.53
Oct				4.28	5.78	4.53	3.38
Nov				4.50	5.55	4.53	3.76
Dec				4.58	5.44	4.53	3.79
Average				4.38	5.87	4.55	3.50
1989							
Jan				4.54	5.24	4.63	3.65
Feb				4.60	5.39	4.55	3.79

Notes:
(a) The rising average sales realizations for the years 1981 to 1983 reflect the imposition of the Natural Gas and Gas Liquids Tax.
(b) Effective November 1, 1986, a new gas agreement between the federal and provincial governments provided for the deregulation of natural gas prices and markets. As a result, the price of natural gas in domestic markets is now subject to the interplay between buyers and sellers.

A5 Canadian Crude Oil Prices: 1979 – 1988

	Conventional Crude Oil Wellhead Price[a]		Petroleum Compensation & Other Charges		Cost of Crude Oil Exclusive of Transportation[b]		Refiner Acquisition Cost at Montreal	
	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³
1979								
Jan 1	12.75	80.23	0.33	2.08	13.08	2.31	14.13	88.92
Jul 1	13.75	86.53	0.33	2.08	14.08	88.61	15.13	95.21
1980								
Jan 1	14.75	92.83	0.85	5.35	15.60	98.18	16.65	104.78
Aug 1	16.75	105.41	1.75	11.01	18.50	116.42	19.73	124.16
Nov 1			2.55	16.04	19.30	121.45	20.53	129.20
1981								
Jan 1	17.75	111.70	5.05	31.77	22.80	143.47	24.07	151.47
1982								
Jan 1	23.50	147.89	7.45	46.89	30.95	194.78	32.54	204.77
1983								
Jan 1	29.75	187.22	4.91	30.89	34.66	218.11	35.79	225.25
1984								
Nov 10	29.75	187.22	7.69	48.39	37.44	235.61	39.44	248.21
1985								
Jun 1	36.40	229.06					38.30	241.02
Dec	37.06	233.22					38.99	245.36
1986								
Jan	32.79	206.34					34.76	218.93
Feb	22.20	139.70					24.18	152.16
Jul	14.60	91.88					16.58	104.34
Dec	19.23	121.01					21.30	134.04
1987								
Jan	22.74	143.10					24.87	156.51
Mar	20.36	128.13					22.48	141.47
Jul	25.17	158.39					27.32	171.92
Dec	20.95	131.84					23.14	145.62
1988								
Jan	19.44	122.34					21.60	135.93
Feb	19.02	119.69					21.17	133.22
Mar	17.67	111.20					19.81	124.66
Apr	19.10	120.20					21.23	133.60
May	19.43	122.27					21.56	135.68
Jun	18.43	115.98					20.55	129.32
Jul	16.20	101.95					18.32	115.29
Aug	16.77	105.54					18.90	118.94
Sep	15.94	100.31					18.05	113.71
Oct	14.43	90.81					16.55	104.15
Nov	14.54	91.50					16.65	104.77
Dec	16.04	100.94					18.15	114.22
1989								
Jan	18.52	116.55					20.67	130.08
Feb	18.43	115.98					20.57	129.51
Mar	19.84	124.83					21.99	138.34

Notes:

(a) Starting June 1, 1985, i.e. following deregulation, the wellhead price shown here is the Edmonton purchase price less estimated gathering costs of approximately $3.90/m³ (62¢/bbl).

(b) Gathering and transportation costs, and charges as applicable, make up the difference between the wellhead price and the refiner acquisition cost at Montreal. These costs amounted to $13.28/m³ ($2.11/bbl) on December 1, 1988.

A6 Average Crude Oil Refiner Acquisition Costs by Region

in dollars per cubic metre[1]

	British Columbia	Prairie Provinces	Ontario	Quebec[2]	Atlantic[2]	Total Canada
1987						
Jan	137.44	146.44	134.34	140.90	145.24	140.15
Apr	144.48	140.71	146.69	151.60	154.80	148.78
Jul	158.14	160.84	162.40	164.21	163.55	161.66
Oct	155.37	150.46	157.41	155.23	154.80	154.56
1988						
Jan	140.84	125.80	141.49	141.51	143.73	138.01
Feb	133.92	123.34	134.14	136.80	139.70	131.96
Mar	123.91	114.66	128.33	127.56	126.62	124.10
Apr	124.29	124.22	124.86	123.18	125.67	124.35
May	126.80	127.06	127.72	126.16	126.49	127.06
Jun	127.37	116.23	128.66	125.32	122.59	124.10
Jul	123.72	105.92	122.02	117.99	115.61	116.11
Aug	116.46	107.30	116.50	118.09	117.99	114.27
Sep	113.90	103.19	114.30	112.19	111.41	110.59
Oct	108.53	93.36	108.37	107.10	101.88	103.77
Nov	100.83	93.78	103.40	102.78	101.55	100.26
Dec	103.73	102.56	105.53	107.58	111.01	105.47
1989						
Jan	118.38	120.57	114.57	115.24	122.61	117.85
Feb	120.52	117.45	125.99	129.19	134.98	125.58
Mar	126.20	129.63	129.61	134.30	139.86	131.55

(1) The variation in average refiner acquisition cost by region is due to quality differences and the lag time between the actual purchase and delivery dates. Assuming an estimated delivery time from Edmonton to Montreal of six weeks, receipts of any given month at Montreal reflect a mixture of crude purchases made during the two previous months.

(2) The exact average cost of crude oil imports is not available for Quebec and the Atlantic region due to confidentiality considerations. Therefore, the average cost of imports for total eastern Canada has been used to determine the regional averages for Quebec and Atlantic.

A7 Average Crude Oil Transporation Costs from Edmonton

in dollars per cubic metre[1]

	Vancouver	Regina	Sarnia	Toronto	Montreal
1987					
Jan	4.47	1.95	7.68	8.24	9.75
Feb	4.47	1.95	7.49	8.04	9.56
Mar	4.47	1.95	7.55	8.12	9.63
Apr	4.69	2.07	7.68	8.30	9.82
1988					
Jan	6.29	2.05	7.55	8.12	9.63
Feb	6.29	2.05	7.48	8.12	9.63
Mar	6.29	2.05	7.42	8.04	9.56
Apr	6.29	2.05	7.37	8.00	9.51
May	6.29	2.05	7.38	8.00	9.52
Jun	6.29	2.05	7.31	7.94	9.45
Jul	6.29	2.05	7.28	7.90	9.42
Aug	5.78	2.05	7.33	7.96	9.48
Sep	5.78	2.05	7.34	7.96	9.48
Oct	5.78	2.05	7.26	7.89	9.40
Nov	5.78	2.05	7.30	7.93	9.44
Dec	5.78	2.05	7.24	7.86	9.38
1989					
Jan	5.78	2.13	7.37	8.02	9.60
Feb	5.78	2.13	7.36	8.02	9.59
Mar	6.72	2.13	7.39	8.04	9.61

Source:
Energy, Mines and Resources Canada, Petroleum and Emergency Planning Branch

(1) Includes pipeline tariffs and pipeline losses but excludes trucking charges.

A8 Canadian Acquisition Costs vs. Product Prices in cents per litre

	Average Unit Revenue from Total Petroleum Product Sales[1]	Average Refiner Acquisition Cost (Unit) (lagged 60 days)[2]	Differential (To cover R&M Costs and Profits, and Retail Margin)
1985			
Dec	33.74	23.47	10.27
1986			
Jan	34.37	23.09	11.28
Feb	34.25	23.06	11.19
Mar	31.82	23.05	8.77
Apr	27.93	19.36	8.57
May	25.82	14.53	11.29
Jun	25.72	11.73	13.99
Jul	24.91	11.73	13.18
Aug	23.91	11.78	12.13
Sep	23.84	10.68	13.16
Oct	23.71	11.10	12.61
Nov	23.58	12.03	11.55
Dec	23.34	12.50	10.84
1987			
Jan	22.74	12.48	10.23
Feb	23.86	12.90	10.96
Mar	24.08	14.02	10.06
Apr	24.20	14.77	9.43
May	23.38	14.32	9.06
Jun	24.34	14.88	9.46
Jul	24.54	15.00	9.54
Aug	24.79	15.49	9.30
Sep	25.14	16.17	8.97
Oct	24.65	16.44	8.21
Nov	25.00	15.89	9.11
Dec	24.99	15.45	9.54
1988			
Jan	24.43	15.46	8.97
Feb	23.98	14.69	9.29
Mar	23.63	13.80	9.83
Apr	23.3*	13.20	10.11
May	22.88	12.41	10.47
Jun	22.62	12.43	10.19
Jul	22.84	12.71	10.13
Aug	22.16	12.41	9.75
Sep	21.81	11.61	10.20
Oct	21.61	11.43	10.18
Nov	21.67	11.06	10.61
Dec	20.67	10.38	10.29

Sources:
(1) Statistics Canada, Prices Division
(2) Energy, Mines and Resources Canada, Petroleum and Emergency Planning Branch

A9 Average Net Prices for Selected Major Petroleum Products and Trade Classes by Region in cents per litre[1]

	1987	1988	Change[2]
Regular Unleaded Gasoline – Branded Retail			
Atlantic	29.9	28.7	– 1.2
Quebec	30.4	28.5	– 1.9
Ontario	27.6	25.1	– 2.5
Prairies	28.6	24.9	– 3.7
Pacific	28.9	25.8	– 3.1
Total Canada	28.7	26.2	– 2.5
Diesel Fuel – Commercial and Industrial			
Atlantic	21.7	21.1	– 0.6
Quebec	21.1	19.5	– 1.6
Ontario	20.9	20.2	– 0.7
Prairies	21.0	19.6	– 1.4
Pacific	21.5	20.0	– 1.5
Total Canada	21.1	19.9	– 1.2
Light Fuel Oil – Branded Retail			
Atlantic	27.1	26.7	– 0.4
Quebec	25.1	25.4	0.3
Ontario	28.6	29.2	0.6
Pacific	27.8	28.0	0.2
Total Canada	27.2	27.6	0.4
Heavy Fuel Oil # 6 – All trade classes			
Atlantic	13.9	11.1	– 2.8
Quebec	13.8	9.7	– 4.1
Ontario	12.8	11.1	– 1.7
Pacific	12.7	9.7	– 3.0
Total Canada	14.0	10.8	– 3.2
Total Petroleum Products[3] – All trade classes			
Atlantic	23.6	22.9	– 0.7
Quebec	23.4	21.1	– 2.3
Ontario	24.5	22.8	– 1.7
Prairies	24.7	23.3	– 1.4
Pacific	25.1	22.5	– 2.6
Total Canada	24.3	22.5	– 1.8

Source:
Statistics Canada, Prices Division

(1) Weighted average prices shown were derived from volumes and sales revenue data reported through a survey of major refiners for a wide range of finely specified products and trade classes. The prices are net of provincial road taxes, federal sales and excise taxes, and dealer margins.

(2) This represents the change in net prices compared to the year earlier period.

(3) This represents the summation of petroleum products from the sample selection reported to Statistics Canada in their survey.

A10 Petroleum Product Prices for Selected Major Products Sold to Private Brand Resellers

	1987		1988	
	Price ¢ / litre	Market Share(1) %	Price ¢ / litre	Market Share(1) %
Premium Unleaded Gasoline				
Quebec	24.3	10.7	20.9	10.5
Ontario	24.1	10.4	20.5	12.2
Prairies	23.4	5.7	19.3	4.5
Regular Unleaded Gasoline				
Quebec	22.9	11.5	18.9	12.8
Ontario	22.5	19.1	19.4	20.4
Prairies	22.0	11.8	19.5	9.4
Regular Leaded Gasoline				
Quebec	21.1	19.8	18.1	20.2
Ontario	21.1	23.4	19.0	25.4
Prairies	20.5	13.7	18.0	12.4
Diesel Fuel				
Quebec	19.7	16.0	17.8	15.3
Ontario	19.3	9.6	18.0	11.3
Light Fuel Oil				
Quebec	18.7	32.4	17.5	30.4
Ontario	18.5	33.0	17.9	30.7
Pacific	23.7	9.4	23.2	15.6

Source:
Statistics Canada, Prices Division

(1) Reflects an estimated market share of sales by reporting refiners, excluding product imports.

A11 Oil Products Sales Volumes: Refiners and Marketers

in millions of cubic metres

	Nationals			Regionals			Total		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Clean Products	48.3	48.4	0	19.2	20.8	8	67.6	69.2	2
Heavy and Specialty Products	11.0	11.1	1	4.2	4.5	8	15.3	15.7	3
Total Sales	**59.4**	**59.5**	**0**	**23.4**	**25.3**	**8**	**82.8**	**84.8**	**2**
Less: Exports	3.7	3.2	–14	2.4	2.5	4	6.0	5.6	–7
Gross Sales in Canada	**55.7**	**56.3**	**1**	**21.1**	**22.9**	**9**	**76.8**	**79.2**	**3**
Less: Sales to Other Refiners	1.2	1.6	36	0.2	0.3	39	1.4	1.9	37
Net Sales in Canada	**54.5**	**54.7**	**0**	**20.8**	**22.6**	**9**	**75.4**	**77.3**	**3**

A12 Net Income by Sector and Segment in millions of dollars

	1987	1988	Change	Change %
Canadian-Controlled Companies				
Upstream	924	722	– 202	– 22
Downstream	244	513	270	111
Other Canadian Operations	99	87	– 12	– 12
Foreign Activities	– 32	– 105	– 73	–
Total Canadian-Controlled	**1234**	**1217**	**– 17**	**– 1**
Foreign-Controlled Companies				
Upstream	1187	175	– 1012	– 85
Downstream	664	964	300	45
Other Canadian Operations	127	40	– 88	– 69
Foreign Activities	106	33	– 73	– 69
Total Foreign-Controlled	**2084**	**1211**	**– 873**	**– 42**
Total Industry				
Upstream	2111	897	– 1214	– 57
Downstream	907	1477	569	63
Other Canadian Operations	226	126	– 100	– 44
Foreign Activities	74	– 72	– 146	–
Grand Total	**3317**	**2428**	**– 890**	**– 27**

A13 Rates of Return: Canadian Petroleum Industry in percent

	1983	1984	1985	1986	1987	1988	Five-Year Average ending in 1987	Five-Year Average ending in 1988
Return on Average Capital Employed								
Upstream								
Canadian-Controlled Companies	4.5	6.2	5.1	– 4.1	5.5	4.2	3.4	3.4
Foreign-Controlled Companies	14.0	11.4	9.5	4.2	7.5	3.0	9.3	7.1
Total Industry	8.1	8.4	6.9	– 0.9	6.6	3.6	5.8	4.9
Downstream[a]								
Canadian-Controlled Companies	– 2.4	3.9	– 1.8	5.9	4.4	6.7	2.0	3.8
Foreign-Controlled Companies	0.8	4.0	3.2	7.5	7.7	9.0	4.6	6.3
Total Industry*	– 0.1	4.0	1.4	6.8	6.4	8.1	3.7	5.3
Total Operations[b]								
Canadian-Controlled Companies	2.2	6.1	3.9	– 4.2	4.9	4.8	2.6	3.1
Foreign-Controlled Companies	8.2	8.3	7.2	4.4	7.5	5.0	7.1	6.5
Total Industry	4.9	7.1	5.2	– 0.8	6.3	4.9	4.5	4.6
*Memo:								
National Refiners/Marketers	– 1.1	3.3	0.8	6.6	5.9	6.7	3.1	4.7
Regional Refiners/Marketers	3.3	6.2	2.8	7.4	7.5	11.3	5.5	7.0
Return on Average Equity								
Canadian Operations								
Canadian-Controlled Companies	– 2.0	5.9	3.5	– 14.5	6.4	6.3	– 0.1	1.5
Foreign-Controlled Companies	11.9	12.7	11.1	5.9	11.8	6.1	10.6	9.5
Total Industry	5.2	9.5	7.1	– 4.8	8.9	6.2	5.2	5.4
Total Operations[b]								
Canadian-Controlled Companies	– 3.2	6.6	3.6	– 18.4	6.2	5.8	– 1.0	0.8
Foreign-Controlled Companies	11.9	12.7	11.0	5.9	11.8	6.0	10.6	9.5
Total Industry	4.6	9.8	7.1	– 7.1	8.8	5.9	4.6	4.9

Notes:

(a) Downstream here represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.

(b) Upstream, downstream (here also includes petrochemicals and other downstream activities), other Canadian and foreign operations.

A14 Rates of Return: Non-Financial Industries Excluding Petroleum

in percent[a]

	1983	1984	1985	1986	1987	1988	Five-Year Average ending in 1987	Five-Year Average ending in 1988
Return On Shareholders Equity[b]								
Non-Financial Industries	8.9	10.8	9.7	9.6	11.4	13.5	10.1	11.0
Manufacturing	9.5	12.1	10.2	10.5	13.3	16.9	11.2	12.6
Mining	1.6	2.2	0.7	1.2	10.8	12.7	3.3	3.5
Other Industries	10.0	11.5	11.3	10.5	9.4	9.8	10.5	10.5
Return On Capital Employed[c]								
Non-Financial Industries	7.1	8.2	7.6	7.4	8.6	9.4	7.8	8.3
Manufacturing	8.0	9.7	8.4	8.5	10.3	12.2	9.0	9.8
Mining	1.9	3.4	1.9	2.2	8.7	9.6	3.6	5.1
Other Industries	7.3	8.0	7.9	7.5	6.9	7.1	7.5	7.5

Source: Statistics Canada 61-003, Industrial Corporations Quarterly

Notes:
(a) Information on Table 3 is based on PMA data as per Appendix A13.
(b) Return on equity is defined as net profit after tax and extraordinary items, divided by average book equity. It measures the rate of return on shareholders' investment (paid-in capital and retained earnings). This measure is often used to compare the performance of companies that may vary by type and by size.
(c) Capital employed is defined as total assets, less current liabilities. The net income figures used to compute rate of return on capital employed have been adjusted by adding the after-tax interest expense on borrowed funds.

A15 Reinvestment Rates in percent

	Total[a]		Upstream[b]		Upstream[c] plus Downstream	
	1987	1988	1987	1988	1987	1988
Integrateds & Refiners	57	71	61	102	57	71
Oil and Gas Producers						
Senior Producers	73	102	69	98	70	97
Junior Producers	124	153	109	146	132	167
Total Oil and Gas Producers	90	118	81	112	88	117
Total Industry	**75**	**95**	**74**	**109**	**73**	**94**
Canadian-Controlled	84	109	77	116	81	106
Foreign-Controlled	69	86	72	103	68	86

Notes:
(a) Total capital expenditures (net of incentive grants) as a percentage of total internal cash flow. The calculations do not reflect changes in inventories. Had changes in the cost of inventories been included, the reinvestment rate would have been 87% in 1988 vs. 79% in 1987.
(b) Upstream capital expenditures (net of incentive grants) in Canada as a percentage of upstream cash flow.
(c) Net upstream plus downstream ('petroleum-related') capital expenditures in Canada as a percentage of internal cash flow generated by petroleum-related activities.

A16 Gross Exploration Expenditures in Canada by Area in millions of dollars

	1987	1988	Change %
Provincial Lands			
British Columbia	169	290	72
Alberta	1966	1998	2
Saskatchewan	141	156	11
Other Provinces	13	17	30
Total Provincial Lands	**2290**	**2463**	**8**
Canada Lands			
Beaufort Sea	111	218	96
Labrador East	184	185	1
Atlantic Shelf South	37	57	54
Other Canada Lands	53	44	– 18
Total Canada Lands	**385**	**504**	**31**
Total Canada	**2675**	**2966**	**11**

A17 Incentive Grants by Area and Type of Expenditure in millions of dollars

	Exploration	Development and Production	Total	Canadian-Controlled	Foreign-Controlled
British Columbia					
1987	3	3	6	4	2
1988	5	6	11	3	8
Alberta					
1987	96	76	172	102	70
1988	127	95	223	123	100
Saskatchewan					
1987	5	14	19	16	3
1988	12	16	28	21	7
Other Provinces					
1987	1	2	2	2	1
1988	2	1	3	3	–
Beaufort Sea					
1987	10	–	10	9	1
1988	–	–	–	–	–
Labrador East					
1987	54	–	54	14	40
1988	–	–	–	–	–
Atlantic Shelf South					
1987	7	–	7	7	–
1988	5	–	5	5	–
Other Canada Lands					
1987	21	–	21	18	3
1988	1	–	1	–	–
Total					
1987	198	95	292	171	121
1988	151	120	271	155	116

A18 Well Completions and Metres Drilled in Canada

	Exploratory			Development		
	1987	1988	Change %	1987	1988	Change %
Well Completions in number of wells						
British Columbia	57	75	32	74	127	72
Alberta	1865	2253	21	3066	4179	36
Saskatchewan	371	559	51	1128	1535	36
Other Provinces	60	76	27	109	119	9
Northern Canada[a]	5	6	20	22	8	-64
Offshore[b]	8	9	13	–	–	–
Total	**2366**	**2978**	**26**	**4399**	**5968**	**34**
Metres Drilled in thousands						
British Columbia	118	159	35	122	209	71
Alberta	2892	3331	15	3736	4599	23
Saskatchewan	364	496	36	968	1265	31
Other Provinces	45	57	27	83	84	1
Northern Canada[a]	13	20	54	19	10	-47
Offshore[b]	30	29	-3	–	–	–
Total	**3462**	**4092**	**18**	**4928**	**6167**	**25**

Source:
Oilweek, February 20, 1989

Notes:
(a) All areas in Canada North of 60°, including Hudson Bay.
(b) East coast and West coast offshore areas.

A19 Comparison of Interest Charges with Income before Interest and Taxes: 1988 in millions of dollars[a]

	(1) Income Before Interest and Taxes	(2) Interest Charges Incurred	(3) Interest Coverage Ratio times
Integrateds and Refiners	**3402**	**491**	**6.9**
Oil and Gas Producers			
Senior Producers	1408	1115	1.3
Junior Producers	519	506	1.0
Total Oil and Gas Producers	1927	1621	1.2
Total Industry	**5330**	**2112[b]**	**2.5**
Canadian-Controlled	2027	810	2.5
Foreign-Controlled	3302	1302	2.5

Notes:
(a) The figures in Column 1 represent the total of income from total operations before taxes and expensed interest. Column 2 shows total interest charges incurred (both expensed and capitalized). Column 3 is the ratio of Column 1 to Column 2.
(b) In addition to the $2 billion of interest charges expensed in 1988, $104 million was capitalized (mostly by foreign-controlled companies).

A20 Dividend Payments

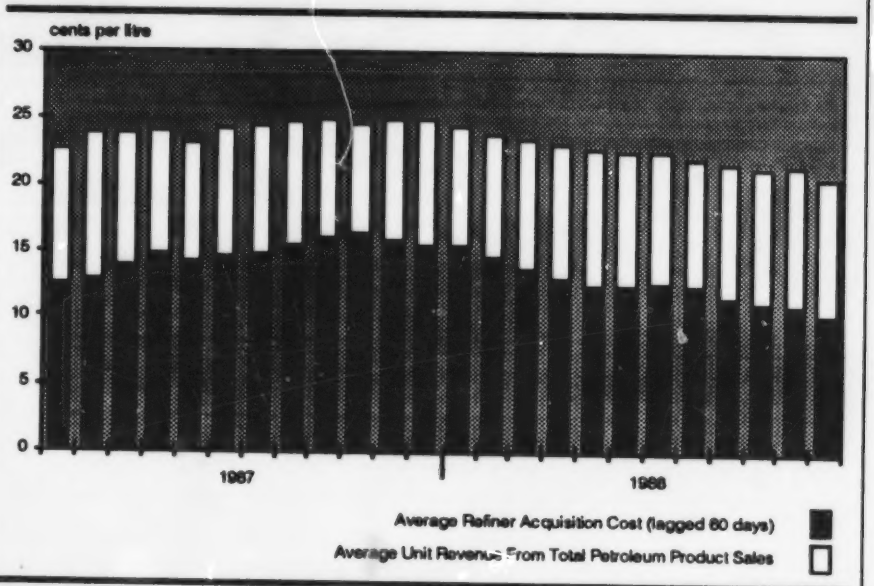
	1987	1988	1987	1988
	$ millions		% of net income[a]	
Integrateds and Refiners	**795**	**1727**	**42**	**97**
Oil and Gas Producers				
Senior Producers	585	499	57	254
Junior Producers	162	239	42	54
Total Oil and Gas Producers	747	738	53	115
Total Industry	**1542**	**2464**	**46**	**102**
Canadian-Controlled	452	984	37	81
Foreign-Controlled	1090	1481	52	122

Note:
(a) Derived by dividing dividend payments for each company group by their net income on total operations (Appendices B1 to B7, and B10).

A21 Income and Expense Statement: 1979 – 1988 as percent of revenues

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Upstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Royalties and other Payments	31	31	29	27	25	24	23	18	17	16
PGRT and other Taxes	–	–	6	9	8	8	7	3	–	–
Interest Expenses	–	–	–	7	6	6	6	10	9	9
Operating Costs and other Cash Items	20	21	27	20	18	18	20	33	29	38
Current Income Tax	8	6	8	9	11	11	11	5	6	–
Cash Flow	40	41	30	28	31	32	34	31	38	37
Depreciation, Depletion and Amortization	7	8	8	8	12	10	11	23	21	26
Other Non-cash Charges	8	9	8	5	4	3	3	6	4	6
Deferred Income Tax	6	7	5	5	5	7	6	–	2	2
Extraordinary Gains	–	–	–	–	–	–	–3	–12	1	3
Net Income	19	18	10	10	11	12	10	–11	12	6
Downstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Sales, Excise and other Taxes	5	7	6	6	6	6	7	11	14	16
Cost of Goods Sold	71	69	75	80	83	80	79	68	64	58
Interest Expenses	–	–	1	1	1	1	1	–	–	–
Operating Costs and other Cash Items	13	11	9	10	10	9	10	13	13	14
Current Income Tax	2	4	3	-1	-1	–	–	2	2	3
Cash Flow	9	9	7	4	3	3	3	6	6	9
Depreciation, Depletion and Amortization	2	2	1	2	2	2	2	3	3	3
Other Non-cash Charges	–	–	–	–	–	–	–	–	–	–
Deferred Income Tax	2	1	1	1	1	–	–	–	–	1
Extraordinary Gains	–	–	–	–	–	–	–	–1	–	–
Net Income	5	6	4	1	–	1	1	3	3	5

A22 Canadian Crude Oil Acquisition Costs vs. Petroleum Product Prices



During 1988 the difference between average refined product prices (excluding provincial sales tax) and average refiner acquisition costs of crude oil ranged from a low of 9¢ to a high of 10.6¢ per litre. The corresponding 1987 figures were slightly higher with a range of 9.1¢ to 11¢ per litre.

A23 Canadian Ownership and Control by Company Group and Category

in percent

	Ownership		Control	
	1987	1988	1987	1988
Petroleum Related Revenues[a]				
Integrateds and Refiners	41.4	43.7	29.1	28.8
Oil and Gas Producers	50.0	46.2	59.1	50.6
Total Industry	**43.8**	**44.3**	**37.4**	**35.0**
Upstream Revenues				
Integrateds and Refiners	39.2	38.7	20.4	20.3
Oil and Gas Producers	47.9	43.7	57.1	45.8
Total Industry	**45.1**	**42.1**	**45.2**	**37.6**
Other Measurement Bases				
Revenues				
Natural Gas	49.0	46.5	52.8	43.5
Crude Oil	43.5	40.9	40.5	35.3
Downstream	43.0	45.7	32.4	33.4
Exploration Expenditures	**54.0**	**52.4**	**54.5**	**50.3**
Total Assets in Canada	**53.6**	**50.4**	**53.4**	**45.2**

Note:

(a) Many petroleum companies have operations in non petroleum-related fields which are not included here. Upstream plus downstream revenues have been taken as a substitute for a more specifically defined figure reflecting every aspect of the Canadian petroleum industry.

A24 'In-house' R&D Expenditures in millions of dollars

	1987			1988		
	Corporate Funds[a]	Government Funds	Total	Corporate Funds	Government Funds	Total
Upstream						
Conventional Exploration and Production	26.4	0.1	26.5	37.7	0.2	37.9
Enhanced Recovery	5.5	–	5.5	6.2	0.2	6.4
Bitumen						
Surface Mining	7.8	–	7.8	1.0	0	1.0
In-Situ	30.7	4.3	35.0	46.0	3.4	49.4
Total Bitumen	38.5	4.3	42.8	47.0	3.4	50.4
Refining	**54.3**	**0.4**	**54.6**	**57.8**	**0.3**	**58.1**
Other						
Other Energy	9.2	0.6	9.8	28.5	1.3	29.8
Non Energy	3.9	–	3.9	6.7	0.2	6.9
Total Other	13.1	0.5	13.6	35.2	1.5	36.7
Total Expenditures	**137.7**	**5.3**	**143.0**	**183.9**	**5.6**	**189.5**

Note:
(a) Corporate funds are composed of internal funds, funds from subsidiaries and affiliates, and funds from others for contract work performed by the reporting energy enterprise.

Appendix B Complete Survey Results

B1

Income and Expense Statement – All Operations in millions of dollars
Total Industry

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	17905	15691	-12.4	27546	26987	-2.0	2893	2875	-0.6	1342	1371	2.2	49685	46924	-5.6
Royalties and other Payments	3049	2512	-17.6	0	0	–	0	0	–	0	0	–	3049	2512	-17.6
PGRT and other Taxes	0	0	–	3963	4318	9.0	21	11	-50.5	89	72	-19.6	4074	4400	8.0
Total Revenue after Royalties	14856	13180	-11.3	23583	22669	-3.9	2871	2865	-0.2	1252	1299	3.8	42562	40012	-6.0
Cost of Goods Sold	0	0	–	17546	15590	-11.1	1327	890	-32.9	285	343	20.3	19158	16823	-12.2
Interest Expenses	1644	1345	-18.2	94	76	-18.6	524	554	5.8	27	33	21.7	2288	2008	-12.2
Operating Costs	5060	5743	13.5	3581	3752	4.8	775	942	21.5	288	358	24.3	9704	10795	11.2
R&D Costs (excluding Oil Sands)	62	81	30.8	69	86	24.7	3	1	-70.0	0	1	100.7	135	169	25.7
Other Expenses	132	146	10.5	19	27	45.9	81	106	30.4	55	45	-18.9	288	324	12.7
Oil Sands R&D Expensed	27	37	37.7	0	0	–	0	0	–	0	0	–	27	37	37.7
E&D Expensed	763	1174	53.9	0	0	–	35	43	24.1	9	20	114.1	807	1237	53.3
Depreciation	916	1056	15.3	709	762	7.5	221	216	-2.3	53	64	20.2	1899	2098	10.5
Depletion	1878	2140	14.0	0	0	–	17	26	57.0	315	381	21.0	2209	2547	15.3
Write-offs and Amortization	873	706	-19.2	17	21	22.6	-79	-46	–	-6	-28	–	805	652	-18.9
Non-cash Charges and E&D	4456	5113	14.7	726	783	7.9	193	238	23.8	372	437	17.6	5746	6571	14.4
Income before Taxes	3502	751	-78.5	1548	2354	52.1	-31	133	–	225	83	-63.1	5243	3321	-36.7
Federal Income Tax	970	188	-80.6	431	582	35.0	-160	-6	–	108	54	-49.7	1350	818	-39.4
Provincial Income Tax	153	-150	–	119	214	79.3	-46	-2	–	0	0	-47.2	227	63	-72.3
Current Income Taxes	1123	38	-96.6	551	796	44.6	-205	-8	–	108	54	-49.7	1576	881	-44.1
Income after Current Income Taxes	2379	714	-70.0	997	1557	56.2	174	141	-19.2	117	29	-75.5	3667	2440	-33.5
Deferred Income Tax	401	234	-41.7	108	136	26.1	-2	12	–	9	-5	–	516	376	-27.1
Net Income after Taxes	1978	480	-75.7	889	1421	59.9	176	129	-26.6	108	34	-68.6	3151	2064	-34.5
Extraordinary Items	132	417	215.3	18	55	201.8	50	-3	–	-34	-106	–	166	363	119.0
Net Income after Extraordinary Items	2111	897	-57.5	907	1477	62.7	226	126	-44.1	74	-72	–	3317	2427	-26.8
Internal Cash Flow	6836	5826	-14.8	1723	2340	35.8	367	379	3.4	488	466	-4.7	9413	9011	-4.3

B2

Income and Expense Statement – All Operations in millions of dollars
Integrateds and Refiners

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	5901	5047	-14.5	27077	26417	-2.4	1763	1575	-10.6	192	238	24.0	34933	33277	-4.7
Royalties and other Payments	962	801	-16.8	0	0	–	0	0	–	0	0	–	962	801	-16.8
PGRT and other Taxes	0	0	–	3962	4318	9.0	15	4	-73.3	0	0	-100.0	3978	4322	8.7
Total Revenue after Royalties	4939	4246	-14.0	23114	22099	-4.4	1748	1571	-10.1	192	238	24.0	29993	28154	-6.1
Cost of Goods Sold	0	0	–	17370	15420	-11.2	1307	888	-32.1	118	154	30.6	18795	16462	-12.4
Interest Expenses	80	28	-65.1	78	57	-27.8	304	357	17.3	1	0	-86.4	464	442	-4.7
Operating Costs	1817	2097	15.4	3420	3555	3.9	193	224	16.3	19	26	34.1	5449	5902	8.3
R&D Costs (excluding Oil Sands)	31	37	20.0	69	86	24.7	3	1	-69.2	0	0	–	103	124	21.0
Other Expenses	13	2	-87.6	16	26	62.9	7	25	267.1	1	1	-21.2	37	53	46.1
Oil Sands R&D Expensed	11	16	54.0	0	0	–	0	0	–	0	0	–	11	16	54.0
E&D Expensed	226	342	51.2	0	0	–	20	26	30.2	0	0	–	246	368	49.4
Depreciation	318	336	5.5	662	706	6.7	83	73	-11.6	2	2	19.5	1065	1118	5.0
Depletion	326	359	10.0	0	0	–	0	5	–	18	17	-10.1	345	380	10.3
Write-offs and Amortization	303	329	8.4	19	24	28.0	-11	-27	–	-2	1	–	309	327	5.7
Non-cash Charges and E&D	1184	1381	16.6	681	731	7.3	92	78	-16.2	18	20	8.7	1976	2210	11.8
Income before Taxes	1814	702	-61.3	1480	2224	50.3	-159	-1	–	34	36	8.5	3169	2961	-6.6
Federal Income Tax	421	85	-79.8	429	566	31.9	-154	-56	–	13	7	-46.1	709	601	-15.2
Provincial Income Tax	128	-8	–	118	206	74.6	-40	-22	–	0	0	3.9	206	176	-14.4
Current Income Taxes	549	77	-86.0	547	772	41.1	-194	-78	–	13	7	-45.6	915	778	-15.0
Income after Current Income Taxes	1266	625	-50.6	933	1452	55.6	35	77	116.8	20	29	44.8	2254	2183	-3.2
Deferred Income Tax	309	197	-36.2	103	133	30.0	-14	12	–	5	5	3.5	403	348	-13.7
Net Income after Taxes	957	428	-55.3	831	1319	58.8	49	65	32.1	15	24	58.5	1852	1835	-0.9
Extraordinary Items	0	-39	–	18	35	88.7	35	-43	–	0	0	–	54	-47	–
Net Income after Extraordinary Items	957	389	-59.4	849	1353	59.4	84	22	-74.3	15	24	58.5	1905	1788	-6.2
Internal Cash Flow	2450	2006	-18.1	1614	2183	35.2	128	154	20.7	38	49	27.5	4230	4392	3.8

B3

Income and Expense Statement – All Operations in millions of dollars
Junior Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	3276	2999	-8.5	9	54	–	478	527	10.2	696	522	-24.9	4459	4102	-8.0
Royalties and other Payments	583	528	-9.4	0	0	–	0	0	–	0	0	–	583	528	-9.4
PGRT and other Taxes	0	0	–	0	0	–	0	0	–	57	44	-22.8	57	44	-23.4
Total Revenue after Royalties	2693	2471	-8.2	9	54	–	478	527	10.2	639	478	-25.1	3819	3530	-7.6
Cost of Goods Sold	0	0	–	0	0	–	19	1	-94.9	80	0	-100.0	99	1	-99.0
Interest Expenses	507	403	-20.5	0	5	–	70	73	3.0	11	14	20.6	589	495	-16.0
Operating Costs	887	955	7.7	6	13	129.4	242	278	15.3	171	210	23.1	1305	1457	11.7
R&D Costs (excluding Oil Sands)	0	0	–	0	0	–	0	0	-47.9	0	1	100.7	1	1	63.0
Other Expenses	88	103	15.9	1	1	9.0	34	59	72.5	29	23	-21.6	153	185	21.2
Oil Sands R&D Expensed	1	2	235.5	0	0	–	0	0	–	0	0	–	1	2	235.5
E&D Expensed	68	84	23.8	0	0	–	0	0	–	0	2	–	68	86	26.2
Depreciation	183	168	-8.2	1	5	–	31	31	0.7	37	20	-45.9	251	224	-10.8
Depletion	664	798	20.1	0	0	–	11	12	3.7	180	153	-14.9	855	962	12.5
Write-offs and Amortization	12	67	–	0	-1	–	-17	14	–	5	12	126.6	0	93	–
Non-cash Charges and E&D	927	1118	20.7	1	5	–	25	57	131.7	222	187	-15.9	1174	1367	16.4
Income before Taxes	284	-109	–	2	30	–	88	59	-33.1	125	44	-64.9	498	24	-95.2
Federal Income Tax	49	13	-74.1	1	0	-85.6	12	14	12.9	70	15	-79.2	132	41	-69.0
Provincial Income Tax	-123	-137	–	0	0	-76.5	1	0	-78.6	0	0	–	-122	-137	–
Current Income Taxes	-74	-125	–	1	0	-83.1	13	14	8.1	70	15	-79.2	10	-96	–
Income after Current Income Taxes	357	16	-95.6	1	30	–	76	45	-40.0	54	29	-46.5	488	120	-75.4
Deferred Income Tax	89	-16	–	0	0	–	2	9	358.0	6	-8	–	97	-14	–
Net Income after Taxes	269	31	-88.4	1	30	–	73	36	-51.0	48	37	-23.5	391	134	-65.8
Extraordinary Items	13	390	–	0	21	–	14	5	-66.7	-34	-106	–	-7	309	–
Net Income after Extraordinary Items	282	421	49.6	1	50	–	88	41	-53.6	14	-70	–	384	443	15.3
Internal Cash Flow	1284	1134	-11.7	2	34	–	100	102	2.2	276	216	-22.0	1663	1487	-10.6

B4

Income and Expense Statement – All Operations in millions of dollars

Senior Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	8728	7645	-12.4	459	516	12.2	652	773	18.6	454	611	34.6	10294	9545	-7.3
Royalties and other Payments	1504	1183	-21.4	0	0	–	0	0	–	0	0	–	1504	1183	-21.4
PGRT and other Taxes	0	0	–	0	0	-100.0	6	7	4.2	32	28	-13.7	39	34	-11.8
Total Revenue after Royalties	7224	6462	-10.5	459	516	12.3	646	767	18.8	422	583	38.2	8751	8328	-4.8
Cost of Goods Sold	0	0	–	177	170	-3.5	0	1	258.1	87	189	116.8	264	360	36.4
Interest Expenses	1057	914	-13.5	15	14	-6.8	149	124	-16.4	15	19	30.6	1236	1072	-13.3
Operating Costs	2356	2691	14.2	155	184	18.2	341	439	28.9	97	121	24.5	2950	3435	16.5
R&D Costs (excluding Oil Sands)	31	44	41.5	0	0	–	0	0	-100.0	0	0	–	31	44	40.5
Other Expenses	31	42	35.2	2	0	-100.0	41	23	-43.9	25	21	-15.7	99	86	-12.8
Oil Sands R&D Expensed	16	19	19.8	0	0	–	0	0	–	0	0	–	16	19	19.8
E&D Expensed	469	748	59.6	0	0	–	14	17	15.6	9	18	98.5	492	783	59.0
Depreciation	415	553	33.1	46	50	9.1	107	111	3.9	14	41	190.9	583	756	29.7
Depletion	887	984	10.9	0	0	–	5	9	86.5	117	212	81.1	1009	1205	19.4
Write-offs and Amortization	558	309	-44.6	-2	-3	–	-51	-33	–	-9	-41	–	496	232	-53.1
Non-cash Charges and E&D	2345	2613	11.4	44	48	7.9	75	104	37.7	131	230	75.5	2596	2995	15.4
Income before Taxes	1404	159	-88.7	66	100	51.3	39	76	92.4	67	3	-95.7	1576	337	-78.6
Federal Income Tax	501	90	-82.0	2	17	–	-18	37	–	24	32	33.2	509	176	-65.4
Provincial Income Tax	147	-5	–	1	8	–	-6	20	–	0	0	-81.5	142	23	-83.6
Current Income Taxes	648	85	-86.8	3	24	–	-24	57	–	25	33	32.4	651	199	-69.4
Income after Current Income Taxes	756	73	-90.3	63	75	19.5	63	19	-70.6	42	-30	–	924	137	-85.2
Deferred Income Tax	4	52	–	6	3	-55.0	10	-10	–	-3	-3	–	16	42	162.2
Net Income after Taxes	753	21	-97.2	57	73	26.8	54	28	-47.1	45	-27	–	908	95	-89.5
Extraordinary Items	119	66	-44.5	0	0	–	0	35	–	0	0	–	119	102	-15.0
Net Income after Extraordinary Items	872	87	-90.0	57	73	26.8	54	64	18.8	45	-27	–	1028	197	-80.9
Internal Cash Flow	3101	2686	-13.4	107	123	14.7	139	123	-11.6	173	201	15.8	3520	3132	-11.0

B5

Income and Expense Statement – All Operations in millions of dollars
Total Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	12004	10644	-11.3	469	569	21.5	1130	1300	15.1	1150	1134	-1.4	14753	13647	-7.5
Royalties and other Payments	2087	1711	-18.0	0	0	–	0	0	–	0	0	–	2087	1711	-18.0
PGRT and other Taxes	0	0	–	1	0	–	6	7	6.2	89	72	-19.6	96	78	-18.7
Total Revenue after Royalties	9917	8933	-9.9	468	570	21.7	1124	1294	15.1	1061	1062	0.1	12570	11858	-5.7
Cost of Goods Sold	0	0	–	177	170	-3.5	19	2	-90.6	167	189	13.1	363	361	-0.5
Interest Expenses	1564	1317	-15.8	15	20	28.3	219	197	-10.2	26	33	26.2	1825	1566	-14.2
Operating Costs	3243	3647	12.4	161	197	22.2	582	718	23.2	268	331	23.6	4255	4893	15.0
R&D Costs (excluding Oil Sands)	31	44	41.7	0	0	–	0	0	-74.7	0	1	100.7	32	45	40.9
Other Expenses	119	144	20.9	2	1	-70.4	75	82	9.1	55	44	-18.9	251	271	7.9
Oil Sands R&D Expensed	16	21	27.0	0	0	–	0	0	–	0	0	–	16	21	27.0
E&D Expensed	537	832	55.1	0	0	–	14	17	15.6	9	20	114.1	560	869	55.0
Depreciation	598	721	20.5	47	56	18.7	138	142	3.2	51	61	20.2	834	980	17.5
Depletion	1552	1781	14.8	0	0	–	16	21	29.3	297	365	22.9	1865	2167	16.2
Write-offs and Amortization	570	377	-33.9	-2	-4	–	-68	-19	–	-4	-29	–	496	325	-34.4
Non-cash Charges and E&D	3272	3731	14.0	45	52	16.3	100	161	60.8	353	417	18.1	3770	4361	15.7
Income before Taxes	1688	50	-97.0	68	130	91.5	127	135	5.6	191	47	-75.6	2074	361	-82.6
Federal Income Tax	549	103	-81.3	3	17	–	-6	50	–	95	47	-50.2	641	217	-66.1
Provincial Income Tax	24	-142	–	1	8	–	-5	20	–	0	0	-81.5	21	-114	–
Current Income Taxes	574	-39	–	4	25	–	-11	71	–	95	47	-50.3	661	103	-84.4
Income after Current Income Taxes	1114	89	-92.0	64	105	64.8	139	64	-53.9	97	0	–	1413	257	-81.8
Deferred Income Tax	92	37	-60.1	5	3	-50.2	12	0	–	4	-10	–	113	28	-74.8
Net Income after Taxes	1021	52	-94.9	58	102	75.3	127	64	-49.3	93	10	-89.2	1300	229	-82.4
Extraordinary Items	132	456	244.7	0	21	–	14	40	177.4	-34	-106	–	112	411	265.5
Net Income after Extraordinary Items	1154	509	-55.9	58	123	110.8	141	104	-26.2	58	-96	–	1412	640	-54.7
Internal Cash Flow	4386	3820	-12.9	109	157	44.8	239	225	-5.9	450	416	-7.4	5183	4619	-10.9

B6

Income and Expense Statement – All Operations in millions of dollars

Canadian-Controlled Companies

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	6433	5875	-8.7	9044	9014	-0.3	1746	1988	13.9	567	489	-13.7	17790	17366	-2.4
Royalties and other Payments	992	883	-10.9	0	0	–	0	0	–	0	0	–	992	883	-10.9
PGRT and other Taxes	0	0	–	1247	1364	9.4	9	11	21.9	7	1	-90.8	1263	1376	8.9
Total Revenue after Royalties	5441	4991	-8.3	7797	7650	-1.9	1738	1978	13.8	560	488	-12.7	15535	15107	-2.8
Cost of Goods Sold	0	0	–	5598	5218	-6.8	956	955	-0.1	80	0	-100.0	6634	6172	-7.0
Interest Expenses	535	481	-10.0	48	36	-26.3	178	238	33.4	24	24	1.1	785	779	-0.8
Operating Costs	1868	2169	16.1	1413	1275	-9.7	449	530	18.1	155	204	31.7	3884	4178	7.6
R&D Costs (excluding Oil Sands)	6	4	-32.6	0	0	-100.0	0	0	-40.9	0	1	100.7	8	5	-29.4
Other Expenses	56	68	22.5	20	23	13.5	33	65	93.0	29	24	-17.9	139	180	29.6
Oil Sands R&D Expensed	6	2	-69.4	0	0	–	0	0	–	0	0	–	6	2	-69.4
E&D Expensed	106	152	43.8	0	0	–	5	6	30.5	0	5	–	111	163	47.0
Depreciation	374	420	12.3	287	308	7.2	78	67	-13.0	25	53	115.9	763	848	11.2
Depletion	951	1141	19.9	0	0	–	12	15	25.8	174	157	-9.9	1138	1313	15.4
Write-offs and Amortization	190	195	2.8	25	12	-51.6	-26	-1	–	11	10	-9.2	201	217	8.1
Non-cash Charges and E&D	1627	1910	17.4	313	320	2.4	69	88	28.5	210	225	7.0	2219	2543	14.6
Income before Taxes	1349	359	-73.4	404	778	92.6	52	101	95.1	61	11	-82.6	1866	1249	-33.1
Federal Income Tax	220	19	-91.6	90	172	92.0	-16	11	–	58	19	-67.7	352	221	-37.4
Provincial Income Tax	-41	-113	–	6	38	–	-7	-1	–	0	0	–	-42	-76	–
Current Income Taxes	179	-94	–	96	210	119.2	-23	9	–	58	19	-67.4	310	144	-53.5
Income after Current Income Taxes	1170	453	-61.3	308	568	84.3	75	92	22.3	3	-8	–	1556	1104	-29.0
Deferred Income Tax	237	117	-50.6	82	94	14.9	-15	4	–	-7	-9	–	296	206	-30.6
Net Income after Taxes	933	336	-64.0	226	474	109.4	90	88	-2.4	10	1	-88.9	1259	899	-28.6
Extraordinary Items	-9	386	–	17	39	127.0	9	-1	–	-42	-106	–	-25	318	–
Net Income after Extraordinary Items	924	722	-21.8	244	513	110.7	98	87	-12.1	-32	-105	–	1234	1217	-1.4
Internal Cash Flow	2796	2363	-15.5	621	888	43.1	144	180	25.3	213	217	1.6	3774	3648	-3.3

B7

Income and Expense Statement – All Operations in millions of dollars
Foreign-Controlled Companies

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Revenues	11473	9817	-14.4	18502	17972	-2.9	1147	887	-22.6	775	882	13.9	31896	29558	-7.3
Royalties and other Payments	2058	1628	-20.9	0	0	–	0	0	–	0	0	–	2058	1628	-20.9
PGRT and other Taxes	0	0	–	2716	2954	8.8	13	0	-99.8	82	71	-13.2	2810	3025	7.6
Total Revenue after Royalties	9415	8188	-13.0	15786	15019	-4.9	1134	887	-21.8	693	811	17.1	27028	24905	-7.9
Cost of Goods Sold	0	0	–	11948	10373	-13.2	371	-65	–	205	343	67.2	12524	10651	-15.0
Interest Expenses	1109	863	-22.1	46	41	-10.4	345	316	-8.4	3	9	163.9	1503	1230	-18.2
Operating Costs	3192	3575	12.0	2169	2477	14.2	326	412	26.2	133	154	15.7	5819	6617	13.7
R&D Costs (excluding Oil Sands)	56	77	38.2	69	86	25.6	3	1	-72.0	0	0	–	127	164	29.0
Other Expenses	76	78	1.7	-2	4	–	48	42	-13.3	26	21	-20.1	149	144	-3.1
Oil Sands R&D Expensed	21	35	68.2	0	0	–	0	0	–	0	0	–	21	35	68.2
E&D Expensed	657	1022	55.5	0	0	–	30	37	23.1	9	15	69.3	696	1074	54.3
Depreciation	542	636	17.3	422	455	7.8	143	148	3.4	28	10	-63.6	1136	1249	10.0
Depletion	926	999	7.9	0	0	–	5	11	139.7	141	224	59.2	1072	1234	15.2
Write-offs and Amortization	683	510	-25.3	-9	8	–	-54	-46	–	-17	-38	–	604	435	-27.9
Non-cash Charges and E&D	2829	3203	13.2	413	463	12.0	124	150	21.2	161	212	31.4	3528	4028	14.2
Income before Taxes	2153	393	-81.8	1144	1576	37.8	-83	32	–	164	72	-55.8	3377	2073	-38.6
Federal Income Tax	750	169	-77.4	342	410	20.0	-144	-17	–	50	35	-28.6	997	598	-40.1
Provincial Income Tax	193	-37	–	113	176	55.5	-39	0	–	0	0	-89.3	268	139	-48.2
Current Income Taxes	943	132	-86.0	455	586	28.8	-182	-17	–	50	35	-29.0	1266	737	-41.8
Income after Current Income Taxes	1210	261	-78.5	689	990	43.6	99	49	-50.7	114	37	-67.6	2111	1336	-36.7
Deferred Income Tax	165	117	-28.9	26	42	60.9	13	7	-42.3	16	4	-73.9	219	170	-22.3
Net Income after Taxes	1045	144	-86.3	663	947	42.9	86	41	-51.9	98	33	-66.5	1892	1165	-38.4
Extraordinary Items	142	31	-77.8	1	16	–	41	-2	–	8	0	-100.0	191	46	-76.2
Net Income after Extraordinary Items	1187	175	-85.2	664	963	45.1	127	40	-68.9	106	33	-69.0	2084	1211	-41.9
Internal Cash Flow	4039	3463	-14.3	1102	1453	31.8	223	199	-10.7	275	249	-9.5	5639	5363	-4.9

B8

Financial Performance for Main Business Segments

Upstream Operations

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Production of Oil Equivalent[1] in thousands of cubic metres	161146	179687	11.5	60789	69796	14.8	100358	109891	9.5
Key Financial Items in millions of dollars			%			%			%
Gross Revenue	17905	15691	-12.4	6433	5875	-8.7	11473	9817	-14.4
Cash Income	6836	5826	-14.8	2796	2363	-15.5	4039	3463	-14.3
Net Income before Extraordinary Items	1978	480	-75.7	933	336	-64.0	1045	144	-86.3
Net Income plus Interest	3622	1824	-49.6	1468	817	-44.3	2154	1007	-53.2
Capital Employed	50323	53496	6.3	24052	24267	0.9	26272	29229	11.3
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Gross Revenue	111.11	87.32	-21.4	105.82	84.17	-20.5	114.32	89.33	-21.9
Royalties and other Payments	18.92	13.98	-26.1	16.31	12.66	-22.4	20.51	14.82	-27.7
PGRT and other Taxes	0.00	0.00	–	0.00	0.00	–	0.00	0.00	–
Revenues after Royalties and Taxes	92.19	73.35	-20.4	89.51	71.51	-20.1	93.81	74.51	-20.6
Interest Expenses	10.20	7.48	-26.6	8.80	6.89	-21.7	11.05	7.86	-28.9
Operating Costs (excluding Research)	31.40	31.96	1.8	30.73	31.07	1.1	31.80	32.53	2.3
Research and other Expenses	1.21	1.27	4.9	1.03	1.04	1.7	1.32	1.41	6.9
Cash Income before Taxes	49.39	32.63	-33.9	48.95	32.50	-33.6	49.65	32.72	-34.1
E&D & Oil Sands R&D Expensed	4.90	6.74	37.5	1.84	2.20	20.0	6.75	9.62	42.4
Depreciation	5.69	5.88	3.4	6.15	6.02	-2.2	5.40	5.79	7.1
Depletion	11.65	11.91	2.2	15.65	16.35	4.4	9.23	9.09	-1.5
Write-offs	5.42	3.93	-27.5	3.13	2.80	-10.5	6.81	4.65	-31.8
Net Income before Taxes	21.73	4.18	-80.8	22.19	5.14	-76.8	21.45	3.57	-83.3
Federal Income Tax	6.02	1.04	-82.6	3.62	0.27	-92.7	7.47	1.54	-79.4
Provincial Income Tax	0.95	-0.83	–	-0.67	-1.62	–	1.93	-0.34	–
Deferred Income Tax	2.49	1.30	-47.7	3.89	1.68	-56.9	1.64	1.06	-35.1
Net Income after Taxes	12.28	2.67	-78.3	15.35	4.82	-68.6	10.42	1.31	-87.4
Extraordinary Items	0.82	2.32	182.7	-0.15	5.53	–	1.41	0.29	-79.8
Net Income after Extraordinary Items	13.10	4.99	-61.9	15.20	10.35	-31.9	11.83	1.59	-86.5
Internal Cash Flow	42.42	32.42	-23.6	46.00	33.86	-26.4	40.25	31.51	-21.7
Ratios in percent									
Natural Gas as a percent of Total Production Volume	40.4	43.5	N/A	45.7	48.7	N/A	37.2	40.3	N/A
Oil Subject to Old Oil Royalty as a percent of Conventional Oil Production Volume	48.1	45.2	N/A	46.2	42.2	N/A	49.0	46.8	N/A

(1) Does not include sulphur.

B8(continued)

Financial Performance for Main Business Segments

Upstream Operations

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Production of Oil Equivalent(1) in thousands of cubic metres	52663	59238	12.5	34431	38802	12.7	74052	81647	10.3
Key Financial Items in millions of dollars			%			%			%
Gross Revenue	5901	5047	-14.5	3276	2999	-8.5	8728	7645	-12.4
Cash Income	2450	2006	-18.1	1284	1134	-11.7	3101	2686	-13.4
Net Income before Extraordinary Items	957	428	-55.3	269	31	-88.4	753	21	-97.2
Net Income plus Interest	1037	455	-56.1	776	434	-44.0	1810	935	-48.4
Capital Employed	13184	16425	24.6	14139	14511	2.6	23000	22560	-1.9
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Gross Revenue	112.06	85.20	-24.0	95.14	77.29	-18.8	117.87	93.64	-20.6
Royalties and other Payments	18.27	13.52	-26.0	16.93	13.61	-19.6	20.31	14.49	-28.7
PGRT and other Taxes	0.00	0.00	–	0.00	0.00	–	0.00	0.00	–
Revenues after Royalties and Taxes	93.78	71.68	-23.6	78.21	63.68	-18.6	97.56	79.15	-18.9
Interest Expenses	1.51	0.47	-69.0	14.73	10.39	-29.5	14.27	11.19	-21.6
Operating Costs (excluding Research)	34.50	35.40	2.6	25.76	24.62	-4.4	31.82	32.96	3.6
Research and other Expenses	0.83	0.66	-21.0	2.57	2.64	2.9	0.84	1.05	25.5
Cash Income before Taxes	56.94	35.16	-38.3	35.16	26.02	-26.0	50.63	33.95	-33.0
E&D & Oil Sands R&D Expensed	4.49	6.04	34.5	1.99	2.21	11.3	6.54	9.39	43.6
Depreciation	6.04	5.67	-6.2	5.31	4.32	-18.6	5.61	6.77	20.7
Depletion	6.19	6.06	-2.2	19.29	20.55	6.6	11.98	12.05	0.6
Write-offs	5.76	5.55	-3.6	0.34	1.74	–	7.54	3.79	-49.7
Net Income before Taxes	34.45	11.84	-65.6	8.23	-2.80	–	18.96	1.94	-89.8
Federal Income Tax	7.99	1.44	-82.0	1.42	0.33	-77.1	6.76	1.10	-83.7
Provincial Income Tax	2.43	-0.14	–	-3.57	-3.54	–	1.99	-0.06	–
Deferred Income Tax	5.86	3.33	-43.3	2.58	-0.40	–	0.05	0.64	–
Net Income after Taxes	18.17	7.22	-60.3	7.80	0.81	-89.7	10.16	0.25	-97.5
Extraordinary Items	0.00	-0.66	–	0.38	10.05	–	1.61	0.81	-49.6
Net Income after Extraordinary Items	18.17	6.56	-63.9	8.18	10.86	32.7	11.78	1.07	-90.9
Internal Cash Flow	46.52	33.86	-27.2	37.31	29.23	-21.6	41.88	32.90	-21.4
Ratios in percent									
Natural Gas as a Percent of Total Production	29.5	31.9	N/A	55.4	59.4	N/A	41.2	44.4	N/A
Oil Subject to Old Oil Royalty as a percent of Conventional Oil Production	48.1	49.4	N/A	34.0	30.5	N/A	54.0	48.4	N/A

(1) Does not include sulphur.

B9

Financial Performance for Main Business Segments

Downstream Operations

	Total Downstream			Petrochemicals and Other			Total Oil Products Operations[1]					
	1987	1988	Change	1987	1988	Change	1987	1988	Change	1987	1988	Change
	$ millions		%	$ millions		%	$ millions		%	$/m³		%
Total Revenue	27546	26987	-2.0	3089	3841	24.3	24456	23146	-5.4	295.30	272.88	-7.6
Sales, Excise and other Taxes	3963	4318	9.0	2	0	-87.2	3961	4318	9.0	47.83	50.90	6.4
Cost of Goods Sold	17546	15590	-11.1	2081	2245	7.9	15466	13345	-13.7	186.74	157.34	-15.7
Operating Costs	3581	3752	4.8	370	425	14.9	3212	3327	3.6	38.78	39.23	1.2
R&D Costs (excluding Oil Sands)	69	86	24.7	18	34	86.4	51	52	2.7	0.61	0.62	0.2
Other Expenses	19	27	45.9	7	1	-89.2	12	26	118.7	0.15	0.31	113.5
Cash Income before Interest and Taxes	2367	3213	35.7	612	1137	85.6	1755	2076	18.3	21.19	24.48	15.5
Interest Expenses	94	76	-18.6	21	20	-3.8	73	56	-22.9	0.88	0.66	-24.8
Cash Income before Taxes	2273	3137	38.0	591	1116	88.8	1682	2021	20.1	20.31	23.82	17.3
Current Income Taxes	551	796	44.6	167	295	77.0	384	502	30.6	4.64	5.91	27.5
Internal Cash Flow	1723	2340	35.8	424	821	93.5	1298	1519	17.0	15.68	17.91	14.2
Depreciation and other Non-cash Charges	726	783	7.9	195	198	1.6	531	585	10.2	6.41	6.89	7.6
Income after Current Income Taxes	997	1557	56.2	229	623	171.8	768	934	21.7	9.27	11.02	18.8
Deferred Income Tax	108	136	26.1	-25	49	-	133	87	-34.2	1.61	1.03	-35.8
Net Income after Taxes	889	1421	59.9	254	574	125.9	635	847	33.4	7.66	9.99	30.3
Extraordinary Items	18	55	201.8	0	21	-	18	35	88.7	0.22	0.41	84.2
Net Income after Extraordinary Items	907	1477	62.7	254	595	134.0	653	882	35.0	7.89	10.39	31.8

	National Refiners-Marketers			Regional Refiners-Marketers		
	1987	1988	Change	1987	1988	Change
	$/m³		%	$/m³		%
Total Revenue	300.81	275.69	-8.3	281.34	266.28	-5.4
Sales, Excise and other Taxes	48.89	51.60	5.6	45.15	49.26	9.1
Cost of Goods Sold	188.59	158.01	-16.2	182.05	155.76	-14.4
Operating Costs	42.98	43.32	0.8	28.15	29.63	5.2
R&D Costs (excluding Oil Sands)	0.80	0.83	3.4	0.14	0.11	-17.4
Other Expenses	-0.18	-0.13	-	0.98	1.34	37.6
Cash Income before Interest and Taxes	19.73	22.05	11.8	24.88	30.18	21.3
Interest Expenses	0.00	0.01	74.2	3.09	2.19	-29.0
Cash Income before Taxes	19.73	22.05	11.7	21.79	27.98	28.4
Current Income Tax	4.74	6.42	35.4	4.38	4.73	8.0
Internal Cash Flow	14.99	15.63	4.3	17.41	23.25	33.5
Depreciation and other Non-cash Charges	5.84	6.57	12.6	7.85	7.64	-2.6
Income after Current Income Taxes	9.15	9.06	-1.0	9.56	15.61	63.2
Deferred Income Tax	1.39	0.17	-87.6	2.16	3.05	40.9
Net Income after Taxes	7.77	8.89	14.4	7.40	12.56	69.7
Extraordinary Items	0.00	0.00	-	0.78	1.37	74.5
Net Income after Extraordinary Items	7.77	8.89	14.4	8.18	13.93	70.2
Ratios in percent			Change			Change
'Clean Products' Sales as a percent of Total Sales Volume	81.40	81.31	-0.1	82.00	82.06	0.1
Net Sales in Canada as a percent of Total Sales Volume	91.83	92.00	0.2	88.94	89.05	0.1
Export Sales as a percent of Total Sales Volume	6.19	5.32	-14.1	10.10	9.71	-3.8

(1) The calculation of unit costs and revenues is based on total sales volume data for the aggregates mentioned.

B10

Sources and Uses of Funds in millions of dollars

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Cash Generated by Operations	9413	9011	-4.3	3774	3648	-3.3	5639	5363	-4.9
Net Increase in Long-term Debt	896	2217	147.5	678	1497	120.7	218	720	230.9
Issue of Shares	1796	2334	29.9	1236	1222	-1.1	560	1112	98.5
Grants (PIP and others)	528	442	-16.3	270	231	-14.4	258	211	-18.3
All Other Sources	7640	4352	-43.0	5397	2070	-61.6	2243	2282	1.7
Working Capital Decrease	2023	4824	138.5	444	2672	-	1579	2152	36.3
Total Sources of Funds	22296	23180	4.0	11799	11341	-3.9	10496	11839	12.8
Total Capital Expenditures in Canada	7081	8448	19.3	3154	3804	20.6	3927	4644	18.3
Capital Expenditure in U.S.A.	150	143	-4.7	92	115	25.3	58	28	-52.2
Other Foreign Capital Expenditures	346	440	27.4	199	297	48.9	146	144	-1.9
Total Foreign Capital Expenditures	495	583	17.7	291	412	41.5	204	171	-16.2
Total Company Capital Expenditures	7577	9031	19.2	3445	4216	22.4	4132	4816	16.5
Dividends:									
Common Shares	1197	2041	70.5	271	614	126.4	925	1427	54.2
Preferred Shares	345	424	22.6	181	369	104.1	164	54	-67.1
Total	1542	2464	59.8	452	984	117.5	1090	1481	35.9
Reduction of Equity	425	1198	181.9	221	947	328.3	204	252	23.3
Total Dividend and Equity Reduction	1967	3662	86.2	673	1930	186.7	1294	1732	33.9
Net Decrease in Long-term Debt	4575	2677	-41.5	2182	1466	-32.8	2393	1211	-49.4
All Other Applications	6135	6346	3.4	4191	3058	-27.0	1944	3288	69.2
Working Capital Increase	2041	1463	-28.3	1308	671	-48.7	734	792	7.9
Total Applications of Funds	22296	23180	4.0	11799	11341	-3.9	10496	11839	12.8

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Cash Generated by Operations	4230	4392	3.8	1663	1487	-10.6	3520	3132	-11.0
Net Increase in Long-term Debt	45	710	-	600	709	18.3	251	798	217.5
Issue of Shares	284	482	69.9	1195	1447	21.0	317	405	27.8
Grants (PIP and others)	135	120	-11.1	201	187	-6.9	191	134	-29.8
All Other Sources	928	449	-51.7	1372	1824	32.9	5339	2080	-61.0
Working Capital Decrease	748	2200	194.2	473	505	6.6	802	2120	164.3
Total Sources of Funds	6370	8354	31.1	5504	6158	11.9	10421	8669	-16.8
Total Capital Expenditures in Canada	2520	3205	27.2	1965	2227	13.3	2597	3016	16.1
Capital Expenditure in U.S.A.	0	0	67.4	24	16	-34.2	125	126	0.9
Other Foreign Capital Expenditures	20	49	149.8	273	214	-21.7	53	177	236.7
Total Foreign Capital Expenditures	20	49	148.9	298	230	-22.7	178	304	70.7
Total Company Capital Expenditures	2539	3255	28.2	2263	2457	8.6	2775	3320	19.6
Dividends:									
Common Shares	607	1680	176.8	61	57	-6.0	529	303	-42.6
Preferred Shares	188	47	-75.3	101	182	80.5	57	196	245.3
Total	795	1727	117.1	162	239	47.9	585	499	-14.8
Reduction of Equity	194	1032	-	181	41	-77.5	50	126	150.7
Total Dividend and Equity Reduction	990	2758	178.7	342	279	-18.3	636	625	-1.7
Net Decrease in Long-term Debt	1010	227	-77.6	959	1115	16.2	2606	1336	-48.7
All Other Applications	1404	1655	17.8	1280	1638	28.0	3451	3054	-11.5
Working Capital Increase	427	459	7.5	660	669	1.4	954	335	-64.9
Total Applications of Funds	6370	8354	31.1	5504	6158	11.9	10421	8669	-16.8

B11

Upstream Canadian Capital Expenditures by Location in millions of dollars

	Total Canadian			Provinces			Canada Lands		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Total Industry									
Land and Lease, Geological and Geophysical	1324	1445	9.2	1288	1364	5.9	36	82	130.5
Exploration Drilling	1351	1521	12.6	1002	1099	9.7	350	422	20.7
Total Exploration	2675	2966	10.9	2290	2463	7.6	385	504	30.8
Development Drilling	1057	1256	18.8	1030	1244	20.7	27	12	-55.2
Production	1248	1637	31.1	1211	1611	33.0	38	26	-30.7
Non-conventional Heavy Oil and Oil Sands	550	846	53.8	550	846	53.8	0	0	-
Total Upstream	5530	6704	21.2	5080	6163	21.3	449	542	20.5
Canadian- Controlled Companies									
Land and Lease, Geological and Geophysical	589	643	9.2	586	636	8.6	3	7	145.7
Exploration Drilling	678	842	24.2	476	613	28.7	202	229	13.6
Total Exploration	1267	1485	17.3	1062	1249	17.6	204	236	15.3
Development Drilling	459	546	18.8	459	546	18.8	0	0	-100.0
Production	479	675	40.9	470	661	40.7	9	14	52.1
Non-conventional Heavy Oil and Oil Sands	187	245	31.1	187	245	31.1	0	0	-
Total Upstream	2391	2950	23.4	2178	2700	24.0	214	250	16.9
Foreign- Controlled Companies									
Land and Lease, Geological and Geophysical	735	803	9.2	702	727	3.6	33	75	129.2
Exploration Drilling	673	679	0.8	525	486	-7.5	148	193	30.3
Total Exploration	1408	1481	5.2	1228	1213	-1.2	181	268	48.3
Development Drilling	598	710	18.8	571	698	22.3	27	12	-55.1
Production	769	962	25.0	741	950	28.2	28	12	-57.7
Non-conventional Heavy Oil and Oil Sands	363	601	65.5	363	601	65.5	0	0	-
Total Upstream	3138	3754	19.6	2903	3462	19.3	236	292	23.9

B12

Capital Expenditures by Activity in millions of dollars

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Exploration	2675	2966	10.9	1267	1485	17.3	1408	1481	5.2
Development	1057	1256	18.8	459	546	18.8	598	710	18.8
Production	1248	1637	31.1	479	675	40.9	769	962	25.0
Oil Sands	550	846	53.8	187	245	31.1	363	601	65.5
Total Upstream	5529	6704	21.3	2391	2950	23.4	3138	3754	19.6
Total Downstream	1210	1328	9.8	625	700	11.9	584	628	7.5
Uranium	0	0	-100.0	0	0	–	0	0	-100.0
Coal	14	15	7.3	5	6	22.3	9	9	-1.6
All Others	329	401	21.9	132	147	11.8	197	253	28.7
Total Capital Expenditures in Canada	7081	8448	19.3	3154	3804	20.6	3927	4644	18.3
Total Capital Expenditures Abroad	495	583	17.7	291	412	41.5	204	171	-16.2
Total Company Capital Expenditures	7577	9031	19.2	3445	4216	22.4	4132	4816	16.5
	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Exploration	601	745	24.0	904	949	5.0	1171	1272	8.7
Development	270	322	19.3	341	466	36.7	446	468	4.9
Production	387	505	30.5	344	419	21.8	517	713	37.9
Oil Sands	342	551	61.1	6	6	2.2	202	289	43.0
Total Upstream	1600	2123	32.7	1594	1840	15.5	2335	2741	17.4
Total Downstream	811	947	16.8	299	296	-1.1	99	85	-14.2
Uranium	0	0	–	0	0	–	0	0	-100.0
Coal	8	8	-1.0	0	0	–	6	7	18.1
All Others	100	127	26.9	72	91	26.1	156	183	16.9
Total Capital Expenditures in Canada	2520	3205	27.2	1965	2227	13.3	2597	3016	16.1
Total Capital Expenditures Abroad	20	49	148.9	298	230	-22.7	178	304	70.7
Total Company Capital Expenditures	2539	3255	28.2	2263	2457	8.6	2775	3320	19.6

B13

Balance Sheet in millions of dollars

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Cash, Investments and Marketable Securities	5093	3610	-29.1	2082	1247	-40.1	3011	2363	-21.5
Accounts Receivable:									
Affiliate	460	662	43.9	147	323	120.1	313	339	8.3
All Other	6302	6036	-4.2	2511	2299	-8.4	3791	3737	-1.4
Total	6762	6699	-0.9	2658	2622	-1.3	4104	4077	-0.7
Inventories	4264	3545	-16.9	1465	1290	-12.0	2799	2255	-19.4
Other Current Assets	755	994	31.6	291	459	57.7	464	535	15.3
Total Current Assets	16875	14847	-12.0	6496	5618	-13.5	10378	9230	-11.1
Property Plant and Equipment	92809	98007	5.6	41040	45503	10.9	51770	52504	1.4
Less:									
Accumulated Depletion Depreciation and Amortization	28549	28609	0.2	11628	13353	14.8	16921	15256	-9.8
Net Fixed Assets	63709	69029	8.4	29013	31860	9.8	34695	37168	7.1
Other Long-term Assets	5462	5703	4.4	2731	2892	5.9	2731	2811	3.0
Total Assets	86045	89579	4.1	38241	40370	5.6	47804	49209	2.9
Accounts Payable:									
Affiliate	874	798	-8.6	98	80	-18.9	776	719	-7.3
All Other	6450	5642	-12.5	2614	2472	-5.4	3836	3170	-17.4
Total	7323	6441	-12.1	2712	2552	-5.9	4611	3889	-15.7
Current Portion of Long-term Debt	1087	977	-10.1	445	361	-18.9	642	616	-4.0
Other Current Liabilities	2765	4860	75.7	1101	2466	123.9	1664	2394	43.8
Total Current Liabilities	11176	12277	9.9	4258	5379	26.3	6917	6898	-0.3
Long-term Debt	20270	18058	-10.9	7739	7518	-2.9	12531	10540	-15.9
Prepayment for Deferred Production	1715	1530	-10.8	696	601	-13.6	1019	929	-8.8
Accumulated Deferred Income Taxes	11538	12080	4.7	5123	5552	8.4	6415	6528	1.8
Other Long-term Liabilities	2469	3636	47.3	474	887	86.8	1995	2750	37.8
Equity:									
Common Shares	15904	16356	2.8	10280	11352	10.4	5625	5003	-11.0
Preferred Shares	5851	5236	-10.5	4785	4025	-15.9	1066	1211	13.6
Retained Earnings	13164	16769	27.4	3010	3365	11.8	10154	13404	32.0
Other Equity	3959	3637	-8.1	1876	1691	-9.8	2083	1946	-6.6
Total Equity	38878	41997	8.0	19950	20433	2.4	18928	21564	13.9
Total Liability, Deferred Taxes and Equity	86045	89579	4.1	38241	40370	5.6	47804	49209	2.9
Working Capital	5699	2570	-54.9	2238	239	-89.3	3461	2331	-32.6

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Cash, Investments and Marketable Securities	2141	2034	-5.0	1118	981	-12.2	1835	595	-67.6
Accounts Receivable:									
Affiliate	60	336	-	147	193	30.7	253	134	-47.0
All Other	3624	3630	0.2	857	805	-6.0	1821	1601	-12.1
Total	3684	3966	7.6	1004	998	-0.6	2074	1735	-16.3
Inventories	3524	2877	-18.3	141	129	-8.7	599	539	-10.1
Other Current Assets	606	693	14.3	84	191	126.2	65	111	70.8
Total Current Assets	9955	9569	-3.9	2347	2299	-2.1	4572	2980	-34.8
Property Plant and Equipment	35963	40922	13.8	20265	21936	8.2	36581	35149	-3.9
Less:									
Accumulated Depletion Depreciation and Amortization	12048	13347	10.8	5380	5849	8.7	11121	9413	-15.4
Net Fixed Assets	23915	27574	15.3	14229	15619	9.8	25564	25836	1.1
Other Long-term Assets	2104	2363	12.3	1134	1009	-11.0	2224	2331	4.8
Total Assets	35974	39507	9.8	17710	18926	6.9	32361	31146	-3.8
Accounts Payable:									
Affiliate	516	461	-10.8	285	301	5.6	73	37	-49.2
All Other	3191	3069	-3.8	926	838	-9.5	2333	1735	-25.6
Total	3707	3530	-4.8	1211	1139	-6.0	2405	1771	-26.4
Current Portion of Long-term Debt	387	253	-34.6	450	415	-7.8	249	308	23.7
Other Current Liabilities	1315	3038	130.9	451	344	-23.8	999	1478	48.0
Total Current Liabilities	5409	6821	26.1	2113	1899	-10.1	3653	3557	-2.6
Long-term Debt	2920	4652	59.4	5415	4983	-8.0	11935	8423	-29.4
Prepayment for Deferred Production	391	313	-19.9	439	403	-8.1	885	813	-8.1
Accumulated Deferred Income Taxes	5763	6466	12.2	1568	1539	-1.8	4207	4075	-3.1
Other Long-term Liabilities	806	1159	43.9	673	1090	62.1	991	1387	39.9
Equity:									
Common Shares	6750	7266	7.7	4029	4850	20.4	5125	4239	-17.3
Preferred Shares	2778	1696	-39.0	1725	2156	25.0	1348	1384	2.7
Retained Earnings	10802	10745	-0.5	328	579	76.6	2035	5445	167.6
Other Equity	356	388	9.1	1421	1426	0.4	2182	1823	-16.5
Total Equity	20685	20095	-2.9	7503	9011	20.1	10690	12891	20.6
Total Liability, Deferred Taxes and Equity	35974	39507	9.8	17710	18926	6.9	32361	31146	-3.8
Working Capital	4546	2748	-39.5	234	400	71.0	919	-578	-

B14

Capital Employed by Sector and Segment in millions of dollars

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Upstream	50323	53496	6.3	24052	24267	0.9	26272	29229	11.3
Oil Products	11674	11915	2.1	4876	4929	1.1	6798	6986	2.8
Other Downstream	3572	3897	9.1	1669	2025	21.3	1903	1873	-1.6
Other Canadian Operations	6955	4880	-29.8	2651	2054	-22.5	4303	2826	-34.3
Total Canadian Operations	72524	74188	2.3	33248	33275	0.1	39276	40914	4.2
Foreign Operations	2853	3114	9.1	1436	1716	19.5	1417	1397	-1.4
Grand Total	75378	77302	2.6	34684	34991	0.9	40694	42311	4.0

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1986	1987	Change %	1986	1987	Change %	1986	1987	Change %
Upstream	13184	16425	24.6	14139	14511	2.6	23000	22560	-1.9
Oil Products	11344	11261	-0.7	329	653	98.4	1	1	9.9
Other Downstream	2476	2561	3.4	148	111	-25.0	948	1225	29.2
Other Canadian Operations	3026	2150	-29.0	1233	984	-20.2	2696	1746	-35.2
Total Canadian Operations	30030	32397	7.9	15849	16259	2.6	26646	25533	-4.2
Foreign Operations	378	289	-23.4	1185	769	-35.1	1291	2056	59.3
Grand Total	30408	32686	7.5	17033	17027	0.0	27936	27589	-1.2

Note:
Capital employed is defined as total assets less current liabilities.

B15
Volume and Value of Production

By Province

Volume in thousands of cubic metres	Alberta 1987	Alberta 1988	Alberta Change %	British Columbia 1987	British Columbia 1988	British Columbia Change %	Saskatchewan 1987	Saskatchewan 1988	Saskatchewan Change %
Conventional Crude–NORP	24487.1	27634.3	12.9	885.8	929.3	4.9	6753.2	6274.3	–7.1
Conventional Crude–Other	26920.2	25733.0	–4.4	1086.2	929.5	–14.4	3175.8	3534.0	11.3
Conventional Crude Oil	51407.3	53367.3	3.8	1971.9	1858.8	–5.7	9929.0	9808.3	–1.2
Oil Sands	15519.3	18217.0	17.4	0.0	0.0	–	1.0	0.2	–80.0
Marketable Natural Gas (10^6m^3)	60578.1	72521.9	19.7	7011.3	7521.0	7.3	1780.2	3249.0	82.5
Gas Plant Liquids	15780.3	16119.6	2.2	322.7	386.1	19.6	44.9	145.4	223.5
Total (including Sulphur)	139213.7	155607.7	11.8	9006.4	9432.4	4.7	11682.3	13049.9	11.7
Value in millions of dollars			%			%			%
Conventional Crude–NORP	3408.1	2826.3	–17.1	125.5	100.4	–20.0	784.9	521.4	–33.6
Conventional Crude–Other	3843.5	2797.8	–27.2	155.3	101.4	–34.7	433.7	307.1	–29.2
Conventional Crude Oil	7251.6	5624.1	–22.4	280.8	201.8	–28.1	1218.6	828.5	–32.0
Oil Sands	2034.4	1687.0	–17.1	0.0	0.0	–	0.1	0.0	–73.6
Marketable Natural Gas	3633.6	3913.8	7.7	364.4	381.2	4.6	95.4	164.2	72.1
Gas Plant Liquids	1444.3	1148.0	–20.5	26.8	23.1	–13.7	4.3	9.7	124.6
Total (including Sulphur)	14363.9	12373.0	–13.9	672.0	606.1	–9.8	1318.4	1002.5	–24.0

By Company Group

Volume in thousands of cubic metres	Total Industry 1987	Total Industry 1988	Total Industry Change %	Canadian Controlled 1987	Canadian Controlled 1988	Canadian Controlled Change %	Foreign Controlled 1987	Foreign Controlled 1988	Foreign Controlled Change %
Conventional Crude–NORP	34020.7	37070.0	9.0	11972.2	13776.5	15.1	22048.5	23293.5	5.6
Conventional Crude–Other	31520.4	30529.0	–3.1	10301.2	10049.3	–2.4	21219.2	20479.7	–3.5
Conventional Crude Oil	65541.1	67599.0	3.1	22273.4	23825.8	7.0	43267.7	43773.2	1.2
Oil Sands	15520.3	18217.2	17.4	4751.0	5484.0	15.4	10769.3	12733.2	18.2
Marketable Natural Gas (10^6m^3)	69683.4	83679.4	20.1	29737.4	36324.7	22.2	39946.0	47354.7	18.5
Gas Plant Liquids	16154.9	16659.0	3.1	6642.6	7104.8	7.0	9512.3	9554.2	0.4
Total (including Sulphur)	162453.6	181045.7	11.4	61004.3	70047.0	14.8	101449.2	110998.6	9.4
Value in millions of dollars			%			%			%
Conventional Crude–NORP	4509.9	3607.8	–20.0	1577.9	1347.5	–14.6	2932.0	2260.3	–22.9
Conventional Crude–Other	4481.3	3241.8	–27.7	1447.7	1040.2	–28.1	3033.6	2201.7	–27.4
Conventional Crude Oil	8991.2	6849.6	–23.8	3025.6	2387.7	–21.1	5965.6	4462.0	–25.2
Oil Sands	2034.5	1687.1	–17.1	709.2	607.1	–14.4	1325.4	1079.9	–18.5
Marketable Natural Gas	4118.3	4480.5	8.8	1714.6	1937.8	13.0	2403.7	2542.7	5.8
Gas Plant Liquids	1476.2	1181.6	–20.0	548.8	498.8	–9.1	927.4	682.8	–26.4
Total (including Sulphur)	16620.2	14198.8	–14.6	5998.2	5431.4	–9.4	10622.0	8767.3	–17.5

Volume in thousands of cubic metres	Integrateds/Refiners 1987	Integrateds/Refiners 1988	Integrateds/Refiners Change %	Junior O&G Producers 1987	Junior O&G Producers 1988	Junior O&G Producers Change %	Senior O&G Producers 1987	Senior O&G Producers 1988	Senior O&G Producers Change %
Conventional Crude–NORP	11036.8	11085.6	0.4	8664.5	9322.7	7.6	14319.4	16661.7	16.4
Conventional Crude–Other	10232.9	10808.4	5.6	4457.8	4097.3	–8.1	16829.7	15623.3	–7.2
Conventional Crude Oil	21269.7	21894.0	2.9	13122.3	13420.0	2.3	31149.1	32285.0	3.6
Oil Sands	10289.6	12472.0	21.2	205.0	136.0	–33.7	5025.7	5609.2	11.6
Marketable Natural Gas (10^6m^3)	16628.5	20206.2	21.5	20415.3	24662.4	20.8	32639.6	38810.8	18.9
Gas Plant Liquids	6398.0	6802.5	6.3	1840.8	1841.9	0.1	7916.1	8014.6	1.2
Total (including Sulphur)	53058.4	59730.1	12.6	34478.8	38842.9	12.7	74916.3	82472.7	10.1
Value in millions of dollars			%			%			%
Conventional Crude–NORP	1429.8	1068.0	–25.3	1104.0	908.3	–17.7	1976.1	1631.5	–17.4
Conventional Crude–Other	1481.5	1138.5	–23.1	616.0	415.0	–32.6	2383.8	1688.4	–29.2
Conventional Crude Oil	2911.3	2206.5	–24.2	1720.0	1323.3	–23.1	4359.9	3319.9	–23.9
Oil Sands	1274.0	1066.6	–16.3	22.4	16.8	–24.9	738.1	603.7	–18.2
Marketable Natural Gas	1011.3	1156.6	14.4	1126.6	1268.6	12.6	1980.5	2055.3	3.8
Gas Plant Liquids	550.3	493.4	–10.3	144.9	122.4	–15.5	780.9	565.7	–27.6
Total (including Sulphur)	5746.9	4923.2	–14.3	3013.9	2731.0	–9.4	7859.4	6544.6	–16.7

B16

Upstream Operating Costs and Royalties in millions of dollars

By Province

	Alberta			British Columbia			Saskatchewan		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Field, Well and Gathering Operations	1786.4	2099.7	17.5	86.4	104.2	20.6	284.2	310.0	9.1
Natural Gas Processing Plants	425.0	495.0	16.5	7.4	10.1	37.0	13.6	15.1	11.1
Oil Sands	1095.7	1292.1	17.9	0.0	0.0	–	0.2	0.0	-80.5
Taxes (excluding Income Taxes)	97.6	91.5	-6.3	3.1	2.0	-34.6	14.8	15.4	4.5
Operating Overhead	1056.4	1125.7	6.6	26.1	27.5	5.3	111.3	114.7	3.0
Total Operating Cost	4461.1	5103.9	14.4	123.0	143.9	16.9	424.1	455.4	7.4
Federal Crown Royalties	0.5	0.3	-36.5	0.0	0.0	–	0.5	0.2	-53.0
Provincial Royalties and Taxes	2148.3	1842.0	-14.3	100.7	89.2	-11.5	251.3	152.7	-39.2
Non-Crown Royalties and Other	436.3	343.5	-21.3	17.8	18.0	0.9	65.0	43.9	-32.4
Total Royalties	2585.1	2185.8	-15.4	118.6	107.2	-9.6	316.8	196.9	-37.9

By Company Group

	Total Industry			Canadian Controlled			Foreign Controlled		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Field, Well and Gathering Operations	2213.5	2569.9	16.1	857.8	978.8	14.1	1355.7	1591.1	17.4
Natural Gas Processing Plants	469.0	545.1	16.2	159.3	215.2	35.1	309.7	329.9	6.5
Oil Sands	1096.0	1292.1	17.9	405.7	492.4	21.4	690.2	799.7	15.9
Taxes (excluding Income Taxes)	116.8	109.8	-6.0	40.7	38.1	-6.5	76.1	71.7	-5.8
Operating Overhead	1226.6	1308.0	6.6	410.8	448.4	9.2	815.8	859.6	5.4
Total Operating Cost	5121.9	5824.9	13.7	1874.4	2172.9	15.9	3247.6	3652.0	12.5
Federal Crown Royalties	7.6	6.1	-19.5	1.5	1.4	-5.8	6.1	4.7	-22.8
Provincial Royalties and Taxes	2510.8	2091.9	-16.7	785.3	701.2	-10.7	1725.4	1390.7	-19.4
Non-Crown Royalties and Other	531.0	413.7	-22.1	204.8	180.8	-11.7	326.2	232.9	-28.6
Total Royalties	3049.4	2511.6	-17.6	991.6	883.3	-10.9	2057.8	1628.3	-20.9

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1987	1988	Change %	1987	1988	Change %	1987	1988	Change %
Field, Well and Gathering Operations	622.1	760.3	22.2	572.7	676.8	18.2	1018.8	1132.9	11.2
Natural Gas Processing Plants	127.8	152.0	19.0	67.9	65.5	-3.5	273.4	327.5	19.8
Oil Sands	669.1	810.3	21.1	12.4	2.5	-80.1	414.4	479.4	15.7
Taxes (excluding Income Taxes)	34.0	27.1	-20.1	21.0	17.8	-15.3	61.8	64.8	4.9
Operating Overhead	394.9	384.5	-2.6	212.8	192.9	-9.3	618.9	730.6	18.0
Total Operating Cost	1847.8	2134.2	15.5	886.8	955.5	7.7	2387.3	2735.2	14.6
Federal Crown Royalties	4.8	4.0	-16.7	1.4	1.3	-6.2	1.4	0.8	-42.7
Provincial Royalties and Taxes	758.9	648.6	-14.5	429.3	395.6	-7.9	1322.5	1047.6	-20.8
Non-Crown Royalties and Other	198.7	148.1	-25.5	152.3	131.4	-13.7	180.1	134.2	-25.5
Total Royalties	962.4	800.7	-16.8	583.0	528.3	-9.4	1504.0	1182.7	-21.4

B17
Income and Expense Statement: 1979 – 1988 in millions of dollars

Upstream	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Total Revenues	12658	16084	17450	20973	23834	26676	27973	16990	17905	15691
Royalties and other Payments	3923	4915	5000	5604	6080	6473	6347	3144	3049	2512
PGRT and other Taxes	–	–	976	1945	2025	2244	2010	452	–	–
Total Revenues after Royalties and Taxes	8735	11168	11474	13424	15730	17959	19615	13393	14856	13180
Interest Expenses	–(1)	–(1)	–(1)	1555	1407	1656	1579	1708	1644	1345
Operating Costs	2571	3461	4756	3966	4182	4705	5253	5217	5060	5743
R&D Costs (excluding Oil Sands)	–(1)	–(1)	–(1)	72	51	64	68	71	62	81
Other Expenses	–(1)	–(1)	–(1)	158	128	131	165	348	132	146
Oil Sands R&D	–(2)	–(2)	–(2)	57	35	27	36	38	27	37
E&D Expensed	1008	1393	1463	979	824	779	876	979	763	1174
Depreciation	306	369	500	542	686	729	841	887	916	1056
Depletion	474	576	543	812	1080	1422	1733	2240	1878	2140
Write-offs and Amortization	157	310	291	418	1043	605	528	872	873	706
Non-cash Charges and E&D	1946	2648	2796	2807	3668	3562	4015	5016	4456	5113
Income before Taxes	4219	5060	3923	4865	6294	7841	8535	1032	3502	751
Federal Income Tax	–	–	–	1686	2246	2303	2482	757	970	188
Provincial Income Tax	–	–	–	174	386	605	549	16	153	– 150
Current Income Taxes	1035	1035	1435	1860	2631	2908	3031	774	1123	38
Income after Current Income Taxes	3184	4025	2488	3005	3663	4933	5504	258	2379	714
Deferred Income Tax	759	1137	812	1035	1215	1829	1768	75	401	234
Net Income after Taxes	2424	2889	1675	1970	2448	3115	3738	184	1978	480
Extraordinary Gains or Losses	–	–	–	100	74	6	– 807	– 1969	132	417
Net Income after Extraordinary Items	2424	2889	1675	2071	2522	3122	2931	– 1785	2111	897
Internal Cash Flow	5129	6673	5284	5812	7330	8506	9521	5275	6836	5826

Downstream	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Total Revenues	18638	24761	33786	31263	30660	31882	34076	26481	27546	26987
Sales, Excise and other Taxes	918	1813	1837	1811	1777	1935	2314	2972	3963	4318
Total Revenues after Taxes	17720	22949	31949	29452	28883	29948	31762	23510	23583	22669
Cost of Goods Sold	–(1)	–(1)	–(1)	25115	25351	25568	26976	17982	17546	15590
Interest Expenses	–	–	–	260	298	361	201	119	94	76
Operating Costs	15692	19760	29090	2824	2677	2714	3252	3189	3581	3752
R&D Costs	–(1)	–(1)	–(1)	68	62	68	80	70	69	86
Other Expenses	–(1)	–(1)	–(1)	159	189	175	43	54	19	27
Depreciation	341	405	430	447	572	612	686	698	709	762
Write-offs and Amortization	– 5	24	27	26	61	30	170	– 75	17	21
Non-cash Charges	337	430	456	473	634	642	856	623	726	783
Income before Taxes	1692	2758	2403	519	– 307	420	353	1473	1548	2354
Federal Income Tax	–	–	–	– 175	– 346	– 17	107	346	431	582
Provincial Income Tax	–	–	–	– 71	– 118	– 3	19	73	119	214
Current Income Taxes	394	1031	826	– 246	– 444	– 20	126	420	551	796
Income after Current Income Taxes	1298	1727	1577	765	137	441	227	1053	997	1557
Deferred Income Tax	309	195	270	424	213	86	– 116	– 4	108	136
Net Income after Taxes	989	1532	1307	376	– 77	355	344	1057	889	1421
Extraordinary Gains or Losses	–	–	–	44	– 9	35	– 129	– 213	18	55
Net Income after Extraordinary Items	989	1532	1307	420	– 86	389	215	844	907	1477
Internal Cash Flow	1635	2157	2033	1273	770	1082	1083	1676	1723	2340

(1) Included in Operating Costs.
(2) Included in E&D Expensed.

B17(continued)
Income and Expense Statement: 1979 – 1988 in millions of dollars

	Other Canadian and Foreign Operations									
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Total Revenues	2316	3403	5166	4752	4626	4788	4914	4459	4234	4247
PGRT, Royalties and other Taxes	31	83	98	204	76	100	169	108	111	82
Total Revenues after Taxes	2285	3320	5068	4548	4549	4689	4745	4351	4124	4164
Cost of Goods Sold	–(1)	–(1)	–(1)	1265	1679	1243	1360	1379	1612	1233
Interest Expenses	–(1)	–(1)	–(1)	842	774	784	689	934	551	587
Operating Costs	1654	2520	4122	1546	1321	1307	1536	1228	1063	1300
R&D Costs (excluding Oil Sands)	–(1)	–(1)	–(1)	5	10	10	7	11	3	2
Other Expenses	–(1)	–(1)	–(1)	630	182	284	186	256	137	151
E&D Expensed	88	106	203	92	63	58	68	30	44	63
Depreciation	108	112	232	308	318	374	281	322	274	279
Depletion	91	119	185	220	252	298	470	668	332	407
Write-offs and Amortization	– 25	– 49	– 50	451	830	128	203	186	– 85	– 74
Non-cash Charges and E&D	261	288	571	1072	1463	859	1022	1206	564	675
Income before Taxes	369	512	375	– 812	– 881	202	– 56	– 663	194	216
Federal Income Tax	–	–	–	– 10	54	7	16	– 172	– 52	48
Provincial Income Tax	–	–	–	– 8	– 15	– 49	– 26	– 32	– 45	– 1
Current Income Taxes	53	9	– 66	– 17	39	– 41	– 9	– 204	– 97	47
Income after Current Income Taxes	317	502	441	– 795	– 919	243	– 47	– 459	291	169
Deferred Income Tax	119	191	187	– 129	– 30	129	69	– 7	7	6
Net Income after Taxes	198	311	254	– 666	– 889	115	– 116	– 452	284	163
Extraordinary Gains or Losses	–	–	–	22	–	92	– 134	– 1302	15	– 109
Net Income after Extraordinary Items	198	311	254	– 688	– 889	206	– 250	– 1754	299	54
Internal Cash Flow	578	790	1012	277	544	1102	976	747	855	845

	Total Operations									
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Total Revenues	33612	44248	56402	56988	59120	63347	66963	47930	49685	46924
Royalties and other Payments	4871	6811	6935	5604	6080	6473	6347	3144	3049	2512
PGRT and other Taxes	–	–	976	3960	3878	4278	4493	3532	4074	4400
Total Revenues after Royalties and Taxes	28740	37437	48492	47200	49162	52595	56125	41254	42562	40012
Cost of Goods Sold	–(1)	–(1)	–(1)	26380	27031	26811	28337	19361	19158	16823
Interest Expenses	–(1)	–(1)	–(1)	2658	2480	2800	2469	2761	2288	2008
Operating Costs	19917	25741	37968	8112	8180	8726	10041	9635	9704	10795
R&D Costs (excluding Oil Sands)	–(1)	–(1)	–(1)	144	122	142	156	153	135	169
Other Expenses	–(1)	–(1)	–(1)	947	499	590	394	658	288	324
Oil Sands R&D	–(2)	–(2)	–(2)	57	35	27	36	38	27	37
E&D Expensed	1096	1499	1667	1071	887	838	944	1010	807	1237
Depreciation	755	886	1160	1297	1576	1715	1808	1907	1899	2098
Depletion	565	695	728	1032	1332	1720	2203	2908	2209	2547
Write-offs and Amortization	127	285	268	895	1935	763	901	982	805	652
Non-cash Charges and E&D	2544	3366	3823	4352	5765	5063	5893	6845	5746	6571
Income before Taxes	6280	8330	6701	4606	5085	8463	8834	1842	5243	3321
Federal Income Tax	–	–	–	1502	1953	2293	2605	931	1350	818
Provincial Income Tax	–	–	–	94	253	553	542	57	227	63
Current Income Taxes	1481	2075	2195	1596	2206	2846	3148	989	1576	881
Income after Current Income Taxes	4799	6255	4506	3010	2879	5617	5687	853	3667	2440
Deferred Income Tax	1187	1523	1269	1330	1398	2043	1721	64	516	376
Net Income after Taxes	3612	4732	3236	1680	1482	3585	3966	789	3151	2064
Extraordinary Gains or Losses	–	–	–	167	65	132	– 1069	– 3484	166	363
Net Income after Extraordinary Items	3612	4732	3236	1802	1547	3717	2897	– 2695	3317	2427
Internal Cash Flow	7342	9620	8329	7362	8644	10691	11580	7698	9413	9011

(1) Included in Operating Costs.
(2) Included in E&D Expensed.

B18
Sources and Uses of Funds: 1979 – 1988 in millions of dollars

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Cash Generated by Operations	7342	9620	8329	7362	8644	10691	11580	7698	9413	9011
Net Increase in Long-term Debt	1784	2720	9791	3538	1839	4261	2087	1900	896	2217
Issue of Shares	1011	1542	2077	3203	2182	1825	2010	2414	1796	2334
Incentives, Grants and others	–	–	796	1431	1667	1915	1865	1138	507	412
All other Sources	1297	798	1187	3031	2991	5174	4143	5119	7660	4382
Working Capital Decrease	1164	636	1202	4384	1524	933	2820	3333	2023	4824
Total Sources of Funds	12598	15317	23382	22948	18848	24798	24505	21601	22296	23180
Upstream Capital Expenditures	5077	6881	6831	6416	6798	8024	9305	6274	5529	6704
Downstream Capital Expenditures	519	782	2021	2180	1611	897	751	725	1126	1189
Other Canadian Capital Expenditures	469	598	1300	1893	1195	934	881	374	426	555
Total Capital Expenditures in Canada	6064	8261	10152	10489	9603	9855	10937	7372	7081	8448
Capital Expenditures in U.S.A.	444	800	1057	575	328	317	720	145	150	143
Other Foreign Capital Expenditures	270	344	744	554	442	360	473	425	346	440
Total Foreign Capital Expenditures	714	1144	1801	1129	770	677	1193	570	495	583
Total Company Capital Expenditures	6777	9405	11953	11617	10373	10532	12130	7942	7577	9031
Dividends:										
Common Shares	–	–	–	–	–	–	1514	2260	1197	2041
Preferred Shares	–	–	–	–	–	–	283	313	345	424
Total	751	973	1178	1131	1257	1358	1798	2573	1542	2464
Reduction of Equity	209	204	385	625	548	166	528	452	425	1198
Total Dividends and Reduction of Equity	960	1170	1563	1756	1805	1523	2325	3025	1967	3662
Net Decrease in Long-term Debt	339	608	658	3560	1545	2576	1884	2931	4575	2677
All other Applications	2689	1640	6915	4756	3111	5652	5953	6783	6135	6346
Working Capital Increase	1833	2487	2293	1259	2013	4514	2212	920	2041	1463
Total Applications of Funds	12598	15317	23382	22948	18848	24798	24505	21601	22296	23180

Appendix C
Glossary of Terms

Acquisitions – the acquisition of shares of other petroleum companies or the purchase of assets from such companies. Capital outlays for these purposes are included under the category 'All Other Uses of Funds' in monitoring reports. *(Acquisitions)*

All Other Sources of Funds – proceeds from the sale of assets or long-term investments and pre-payments received for future production and the reclassification of sizeable short-term debt to long-term such as occurred in 1984. *(Autres sources de fonds)*

All Other Uses of Funds – includes acquisitions, purchases of used machinery and equipment, and long-term investments. *(Autres affectations de fonds)*

Amortization – the charge to expense, over time, of assets, other than through depreciation, depletion, and exploration and development expensed to current operations. It also includes gains or losses on disposal of assets and write-downs of assets. *(Amortissement)*

Canada Lands – physical areas of Canada outside provincial boundaries. *(Terres du Canada)*

Canadian Control – in general, a company is Canadian-controlled when 50% or more of its voting shares are held by Canadian residents either directly or indirectly. In a few exceptional cases, when a significant block of shares is held by Canadian residents and the remaining shares are widely held, a company may be effectively Canadian-controlled even though more than 50% of the voting shares are held by non-residents. *(Contrôle canadien)*

Canadian Exploration and Development Incentive Program (CEDIP) – provides direct assistance to companies conducting exploration and development activities in Canada. Beginning April 1, 1987, CEDIP provides a cash payment for 33 1/3 % of exploration and development expenses anywhere in Canada, up to a maximum of $10 million annually per company. Fiscal measures proposed under the Income Tax Reform of June 1987, provide for the phasing out of the program over approximately the same period as earned depletion; i.e. expenses incurred after October 1, 1988 and ending before June 30, 1989 will receive a 25% incentive rate, and this rate will be decreased to 16 2/3% after June 30, 1989 until the termination date of December 31, 1989. *(Le programme canadien d'encouragement à l'exploration et à la mise en valeur)*

Canadian Exploration Incentive Program (CEIP) – provides up to $3 million in incentives per corporation for each calendar year, based on 30% of eligible expenses to a ceiling of $10 million a year. The $10 million limit is for both the CEIP and CEDIP programs. The CEIP program began for oil and gas exploration on October 1, 1988 when the incentive rate for the CEDIP program fell to 25%. CEIP incentives are limited to exploration expenses incurred under flow-through agreements, where the corporation and the investor are at arms's length. *(Le programme canadien d'encouragement à l'exploration)*

Canadian Ownership – the proportion of the total voting shares of a company held, either directly or indirectly (through other corporations), by Canadian residents. *(Participation canadienne)*

Capital Employed – the net book value of total assets, less current liabilities. *(Capital utilisé)*

Capital Expenditures – investments in new machinery, equipment, structures and resource properties, whether capitalized or charged directly to current operations, as well as intangibles (e.g. cost of leased equipment), capitalized interest and capitalized repair expenditures. *(Dépenses de capital)*

Current Income Tax – the portion of the provision for income taxes, both federal and provincial, pertaining to the reporting period and assumed to be currently due. *(Impôt sur le revenu courant)*

Debt/Equity Ratio – the ratio of long-term liabilities (over one year) to shareholders' equity (share capital plus retained earnings) at the end of a period. Depending upon their terms and conditions, preferred shares may be classified as either debt or equity (see 'long-term debt'). *(Rapport d'endettement)*

Deferred Income Taxes – taxes accrued and reflected as an expense in the income statement, but not payable in the financial reporting period. Income taxes are deferred, for example, when companies write off capital assets (using capital cost allowances) for income tax purposes at rates that exceed those employed in preparing their financial reports. *(Impôt reporté)*

Depletion – the amount charged to expense in the company's financial statements which relates to depletable assets that have been capitalized. This is not the earned depletion allowance calculated for income tax purposes. *(Epuisement)*

Depreciation – the amount charged to expense which relates to depreciable assets that have been capitalized. This is not the amount of capital cost allowance that is used to compute depreciation for income tax purposes. *(Dépréciation)*

Development Expenditures – includes drilling and well completion costs in an area of already proven oil or natural gas reserves, expenditures on field gathering and separation systems, and the cost of acquiring proven reserves. *(Dépenses de mise en valeur)*

Downstream Segment – includes refining, marketing, transportation and petrochemical operations. *(Secteur aval)*

Energy Mining – uranium and coal mining (excludes oil sands mining). *(Extraction minière des ressources énergétiques)*

Equity – the book value of shareholders' paid-up capital, contributed surplus and retained earnings. *(Avoir propre)*

Exploration Costs – include all lease fees and land acquisition costs, geological and geophysical expenditures, and exploratory drilling costs whether capitalized or expensed. Exploratory drilling is generally defined as the drilling of a well outside a proven area, or within a proven area but to a previously untested zone, in order to determine whether oil or gas reserves exist. Also included are costs of dry wells, casing and other materials and equipment abandoned in place. *(Frais d'exploration)*

External Sources of Funds – funds obtained from sources other than internal cash flow. Long-term debt and equity are the main examples. *(Sources externes de fonds)*

Flow-through Shares – a financial vehicle that allows a resource company to issue shares and thereby raise funds for exploration and development expenditures. In turn, the company renounces the associated tax expenses such as Canadian exploration expenses (CEE), Canadian development expenses (CDE) and Canadian oil and gas property expenses (COGPE) to the purchasers of the flow-through shares. Flow-through arrangements permit investors to deduct resource expenses incurred by the issuing corporation against income from other sources. *(Actions accréditives)*

Full Cost Accounting – an accounting method by which all costs incurred in prospecting for reserves and in acquiring, exploring and developing properties within cost centres are initially capitalized and only charged to expense as the reserves deemed to be related to those costs are produced. Costs incurred include prospecting, leasing, acquisition, retention, exploration and development costs, and associated indirect costs (i.e. general and administrative costs). Operating costs are expensed as incurred. *(Méthode de capitalisation du coût entier)*

Integrated Companies – individual companies that have significant revenues in both the upstream and downstream segments. *(Sociétés intégrées)*

Internal Cash Flow – net income after tax plus exploration and development expenditures expensed in the current period, depreciation, depletion, amortization and deferred income taxes. *(Ressources d'autofinancement)*

Junior Producers – companies that are predominantly exploration and production oriented and that individually generate less than 1% of industry upstream revenues. *(Petits producteurs)*

Long-term Debt – debt that has a maturity date greater than one year. Preferred shares may be treated as long-term debt when they are redeemable for a fixed amount without conversion privileges or voting rights. *(Dette à long terme)*

Non-cash Charges – items expensed in the reporting period that do not require an actual financial outlay in that period, such as depreciation, depletion and amortization. *(Frais non monétaires)*

Non-conventional Heavy Oil – deposits of oil of a density usually greater than 934 kg/m^3 that are for the most part recoverable through enhanced recovery methods. Canadian deposits of heavy oil are typically in the range of 935 to 985 kg/m^3. Main centres are Cold Lake and Lloydminster. *(Pétrole lourd non classique)*

Oil Sands – crude bitumen resources from deposits that are generally solid unless heated and are of a density usually greater than 985 kg/m^3. Athabasca, Peace River, Wabasca, Cold Lake and Buffalo Head Hills are the main Canadian resource areas. *(Sables pétrolifères)*

Other Canadian Operations – include drilling services, coal and uranium mining, metal mining, and other non-petroleum related activities. In addition, corporate activities may be included here. *(Activités autres au Canada)*

Petroleum Incentives Program (PIP) – provided direct incentive payments to enterprises conducting exploration and development activities in Canada. The level of incentive varied according to the area of activity and was higher for enterprises that were Canadian controlled and had specified levels of Canadian ownership as determined under the Canadian Ownership and Control Determination Act. The Government of Alberta administered and paid incentives for activities within Alberta, and the Petroleum Incentives Administration of the Government of Canada funded and administered the program elsewhere in Canada. Fiscal measures agreed upon under the Western Accord included the termination of the PIP program on March 31, 1986 for all activities formerly eligible to receive grants, other than exploration expenses incurred in drilling frontier wells required to satisfy commitments under existing Exploration Agreements on Canada Lands. These eligible frontier wells continued to qualify for PIP during a further grandfathering period which was terminated December 31, 1987. *(Programme d'encouragement du secteur pétrolier)*

Petroleum and Gas Revenue Tax (PGRT) – a tax on production revenue net of operating costs, non-Crown royalties and, where Crown royalties or taxes based on production were payable, a 25% resource allowance. Qualifying tertiary recovery projects also reduced the tax base by eligible capital costs incurred after 1982 to the extent of pool taxable revenue. In April 1986, the existing $500,000 small producers' credit was increased to $2 million and the deduction for individuals of $10,000 of resource income from the PGRT was increased to $40,000. The Syncrude and Suncor oil sands plants were also granted a zero rate of PGRT until the end of 1986. Companies in a non-profit position were allowed to offset unused new exploration and development expenditures against the PGRT. The Western Accord would have phased PGRT out of existence by January 1, 1989, but on September 8, 1986 the Government of Canada announced its termination effective October 1, 1986. PGRT was non-deductible for income tax purposes. *(Taxe sur les recettes pétrolières et gazières)*

Production Expenditures – all expenditures relating to the production of crude oil and natural gas. Expenditures on natural gas processing plants are included. *(Dépenses de production)*

Senior Producers – companies that are predominantly exploration and production oriented and that individually generate more than 1% of industry upstream revenues. *(Grands producteurs)*

Successful Efforts Accounting – an accounting method by which only costs resulting directly in identifiable future benefits through discovery, acquisition or development of reserves are capitalized. Costs that do not provide identifiable future benefits are expensed as incurred, or are written off when the properties are determined to be non-productive. Such costs include those relating to geological and geophysical studies, retention of undeveloped properties, and non-productive exploration and development efforts. *(Méthode de capitalisation du coût de la recherche fructueuse)*

Upstream Segment – activities and operations related to the search for, and development, production, extraction and recovery of crude oil, natural gas, natural gas liquids and sulphur, as well as the production of synthetic oil. *(Secteur en amont)*

Working Capital – current assets (cash, short-term investments, accounts receivable, inventories) less current liabilities (accounts payable, debts and obligations maturing in less than one year). *(Fonds de roulement)*

Appendix D PMA Terms of Reference

Mandate of the Petroleum Monitoring Agency

The Petroleum Monitoring Agency (PMA) was established initially in 1980 under the Inquiries Act and continues under the Energy Monitoring Act (EMA)[1] after February 1983. The Agency's goals are to provide the federal government and Canadians generally with comprehensive and objective information on and analysis of the financial performance of the petroleum industry in Canada:

(a) to enable the Government of Canada to better plan and develop policies for the management of Canada's energy supplies and resources, and,

(b) to provide the Government of Canada and Canadians generally with assurances that those policies are being pursued and are effective.[2]

These goals are accomplished by publishing semi-annual and annual reports based on information received directly from all but the smallest oil and gas companies doing business in Canada.

To provide impartiality of reporting and maintain credibility among users, the PMA was created as a separate and independent Agency, with its Chairman reporting directly to the Minister of Energy, Mines and Resources.

The Act, at subsection 5(1), sets out that energy enterprises shall file, twice a year, returns providing data and information relating to:

(a) ownership and control,
(b) sources and application of funds,
(c) exploration, development, production, processing, refining and marketing,
(d) cost and revenues,
(e) deductions, credits, allowances and carry forwards provided under the Income Tax Act,
(f) the distribution and disposition of its revenues and profits,
(g) resources, reserves and properties,
(h) ownership or interest in any other enterprise,
(i) research and development programs, and
(j) other prescribed matters relating to oil and gas production, refining and marketing, and the funds derived from such activities.

Energy enterprises are defined as individuals, corporations, partnerships, trusts or organizations engaged in the exploration for, development, refining and marketing of oil and gas and having consolidated gross annual revenues or assets in excess of ten million dollars. Regulations prescribe that gross revenues and assets be determined according to accounting standards set out in the Canadian Institute of Chartered Accountants Handbook. Currently only corporations are surveyed by the Agency. Each energy corporation is required to report on a consolidated basis on the activities of corporations it controls or owns.

Sources of Data and Information

The data published in the *Petroleum Monitoring Report* are aggregate data derived mainly from survey schedules prescribed by regulations.[3] Since part of the Agency's information gathering function falls within areas covered by Statistics Canada, a number of data sharing agreements were negotiated between PMA and Statistics Canada under section 11 of the Statistics Act. These agreements reduce the industry's response burden in relation to the Agency's overall information requirements. Information also flows from PMA to Statistics Canada. Current data sharing agreements relate to:

- ownership and control of energy enterprises,
- capital structure,
- international flows of funds,
- research and development expenditures,
- exploration, development and capital expenditure intentions,
- quarterly corporate financial statistics, and
- capital expenditures and operating costs.

The first five of these involve transmission of information to the PMA; the last includes information on such subjects as exploration, development and production expenditures, and royalties from the PMA to Statistics Canada.

(1) S.C. 1980-81-82-83, c. 112.
(2) P.C. 1980-2137.
(3) Currently prescribed schedules are contained in regulation SOR/88-636

Data Coverage

Industry gross revenues covered by the PMA through aggregation of returns from 125 reporting enterprises account for 89% of upstream industry revenues as determined by Statistics Canada. The remaining 11% of industry revenues accrue to firms having revenues or assets below the Agency's current reporting thresholds. The high degree of coverage of industry revenues and the inclusion of all but the smallest energy enterprises enable conclusions drawn from Agency aggregates to be applied to the industry as a whole. Degrees of coverage of other performance indicators are presented below.

Comparison of PMA Data with 1988 Industry Aggregates
Percentage of industry aggregates covered

Upstream Production Revenues	89
Upstream Expenditures in Canada	89
Production Volumes:	
Crude Oil and Liquids	87
Marketable Natural Gas	92
Refined Product Sales Volumes	87

Comparison of Survey Results – PMA vs. Statistics Canada

The petroleum industry's financial performance is regularly compared to that of other sectors of the economy using aggregate data from Statistics Canada. Net income and rates of return information provided in Chapters 1 and 2 of this report will differ slightly from the results shown in Chapter 3 and in Appendix A14, because the latter are based on Statistics Canada data.

Petroleum industry data from Statistics Canada, while covering a greater number of companies than the PMA survey, exclude government business enterprises as well as the foreign activities of Canadian petroleum companies. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, provided these companies meet the minimum requirements in terms of assets and revenues. In addition, though Statistics Canada may make adjustments to company reported data, the PMA reports only on the industry's activities as they are submitted. For example, in 1983, a write-down by one large Canadian-controlled company of assets of $1 billion was treated as 'extraordinary' by Statistics Canada, whereas the Agency accepted the entry as 'ordinary', as reported by the company.

Regarding rates of return, both agencies determine return on capital employed by adding back to net income the after-tax portion of interest on long-term debt. While the PMA produces this calculation for each company individually, using the statutory tax rate on that portion of interest expense which would increase net income, the add back on Statistics Canada aggregate industry results must rely on the average effective tax rate, i.e. current taxes as a percentage of net income before taxes.

Ownership and Control Determination

The Agency publishes annually information on the level of Canadian ownership and control of the oil and gas industry in Canada. The methodology and sources of information underlying its analyses are summarized below.

In the process of control determination, the Agency has based its definition on whether Canadian or foreign shareholders have potential control over a reporting enterprise's overall operations. Control is a contractual right conferred upon a person, or group of persons, to direct, within the limitations of relevant statutes, in the present or at some future date, the affairs or management of a company, on a day to day basis or otherwise, usually through the appointment of a majority of a board of directors. Control is not to be confused with managerial responsibility for the firm. The concept of control emerged in order to recognize the separation in modern corporations between managers and shareholders. Shareholders assert control over management through the board of directors and the shareholders' meeting.

Control that is exercised by, for instance, nominating and electing the majority of the directors is active control. Control is just as real when the shareholder with a continuing right to intervene chooses instead, for whatever reason, not to exercise that right. The latter unexercised option to take active control is called potential control. For the purposes of the PMA, the two types of control – active and potential – are equivalent. Both types are called control. The Canadian Business Corporations Act similarly embraces the concept of potential control within its definition of control which refers to sufficient votes, "*if exercised*, to elect a majority of the directors of the body corporate."

While control is generally based on the ownership of 50% or more of voting shares, it is possible for control to be exercised with a smaller ownership block. A person who owns at least 51% of the voting shares is said to have "de jure" control. One who owns less than 50% of the voting shares, but is able to alter the composition of the board of directors and/or management, is said to have "de facto" control. Statistics Canada assigns "de facto" control of a public corporation, for the purposes of the Corporations and Labour Unions Return Act (CALURA), to a person owning at least 20% of the outstanding voting shares when no other two shareholders together own as much as 20%.(1) The PMA methodology for determining control in such cases is consistent with that used by Statistics Canada. "De facto" control may also be conferred upon a person, or group of persons, owning less than 51% of the voting shares of a public or private corporation through several other mechanisms:

(a) *Blocks of voting shares* – Two or more shareholders whose holdings together sum more than 50 % of total shares and who generally act in concert.

(b) *A shareholders' agreement* – An agreement among some or all shareholders to vote or act in certain ways in various contingent circumstances, especially in relation to naming directors.

(c) *Options* – A minority shareholder enjoys the right at any time to acquire additional voting shares to raise his holdings to 51% or more of the outstanding voting shares.

(d) *Personal Relationships* – Where two shareholders are related by blood relationship, marriage or adoption, they may be deemed to constitute a voting group.

(e) *Interlocking Directorships* – When corporation A owns at least a minimum percentage of voting shares of corporation B, and is the single largest minority shareholder of corporation B, and both corporations share a large number of common directors, corporation A is said to control corporation B.

For purposes of determining the industry-wide level of control, 100% of the relevant yard stick of the controlled company is assigned to the appropriate control category. Thus, regardless of the percentage ownership of voting rights by non-residents, if the company is effectively controlled by non-residents, then for statistical purposes 100% of its activities are assigned to the foreign-controlled sector. To illustrate, several integrated companies included in this report, though all foreign controlled, have varying degrees of Canadian ownership (up to 30%). However, when measuring the level of control the entirety of their relevant corporate activities is assigned to the appropriate control sector.

In the case of ownership, that percentage of the relevant yardstick which represents the beneficial ownership of formal equity by non-residents is assigned to the foreign-owned category, while that of Canadian residents is assigned to the Canadian-owned category.

The most commonly used yardsticks are upstream or total petroleum-related revenues (upstream plus downstream). Ownership and control are generally measured on gross revenues recognizing that these best reflect economic activity and that they are a stable proxy for net economic benefits over time. For example, the deduction of royalties from gross petroleum revenues would have little or no impact on the relative distribution of revenue between Canadian and foreign owners.

Other measurement bases such as assets or capital employed do exist but suffer from the deficiencies of relying upon historical 'book' values rather than current market value, and of being subject to the different accounting techniques used in the petroleum industry such as the full cost and successful efforts methods.

The Agency has access to ownership and control information collected under CALURA from those enterprises which report under the EMA. CALURA requires detailed disclosure of ownership information from all owners of blocks of shares equal to or greater than 5% of total voting shares. Should a reporting energy enterprise fail to file a timely return under CALURA, Regulation SOR/85-328 authorizes the Agency to obtain the ownership and control information directly.

(1) *The Ownership, Control, and Country of Control of Corporations*, Statistics Canada, June 4, 1987, p. 8.

Recently, the Agency took steps to 'look through' the nationality and ownership of nominee holdings deemed to be Canadian due to the residence of the nominee regardless of that of the beneficial owner. Energy enterprises were requested to grant the PMA access to their Holders of Record listings held by depositories in Canada and the U.S.A. In several instances, such information revealed a significantly lower degree of beneficial Canadian ownership than reported in CALURA information. The results of this activity will be published in future monitoring reports.

Inter-period Comparability of Results

The Canadian Petroleum Industry Monitoring Report presents comparisons of the current reporting period's results with those of previous comparable periods. Such comparisons are sensitive to changes in the list of reporting companies defined as the 'industry', in its analytic groups, i.e. integrateds and refiners, and oil and gas producers, and in the control status of reporting enterprises. To permit valid inter-period comparisons, the Agency consistently fixes industry group membership and control according to the reported information for the current period, and imposes that membership and control on results for the prior reporting periods.

Lists of reporting enterprises (i.e. corporations with more than $10 million in assets or sales) are updated each reporting period. Newly qualifying enterprises are added to the industry aggregates and the respective group only when results for two comparable reporting periods are available. Occasionally, enterprises exit from the industry during the current period, by acquisition or wind-up. Prior period results for both the industry and the group presented in the current period's report will reflect the exit of the former reporting enterprise: the enterprise is excluded from the current and the prior period aggregates. Should the exit result from acquisition by a reporting enterprise, the acquired enterprise's prior period results are added to those of the acquiring enterprise regardless of whether the acquired enterprise was in the same analytic group as the acquisitor.

Divestitures or acquisitions by reporting enterprises during the current period may result in an enterprise satisfying the inclusion criteria of an analytic group other than that to which it has been assigned in the prior period's Monitoring Report. For example, where an integrated group member divested itself of its downstream operations during the current period, it would be included in either the senior or junior producer group, depending upon the facts of the matter, for the current period and with that group's aggregate results for the corresponding prior period. It is important to note that all the divesting enterprise's prior period assets and revenues, regardless of the segment of operations, are transferred to the current period analytic group to establish prior period analytic group aggregates.

Similar adjustments to industry and analytic group aggregates are made in cases where ownership switches from Canadian to foreign or vice versa. The current period nationality of ownership determines that of the prior period for purposes of inter-period comparisons. However, in that part of the annual Monitoring Report dealing with ownership and control, the analysis takes into account the changes in the control of the reporting companies as they occur.

Appendix E Impact of Accounting for Business Combinations

The majority of business combinations resulting after the acquisitions of companies in 1988 were accounted for under the 'purchase method of accounting'.

This accounting method requires the application of a revised value to the assets and liabilities of an acquired company, based on the purchase price of the total equity, if it differs from the book value of the company purchased.

Section 1580 of the CICA Handbook establishes the criteria that should be used in treating a purchase transaction; some of these criteria are outlined below.

- Under the purchase method of accounting, the acquiring company's interest in the assets acquired and liabilities assumed should be recorded at the cost to the acquiring company. The cost of the purchase is determined by the fair value of the consideration given – fair value is, the amount that would be agreed upon by informed parties dealing at arm's length. While the fair value is easily determined when the consideration given is cash, more complex calculations are required when the consideration is equity, debt securities or other forms of liabilities. The fair value is to be determined for the business as a whole, including tangible and intangible assets and liabilities, and the cost of the purchase is to be calculated by applying the percentage of the equity acquired.

- Once the purchase cost is determined, it has to be assigned to identifiable assets (or categories of assets), assumed liabilities and, where applicable, goodwill – any excess of the cost of purchase over the acquirer's share in the amounts allocated to assets less liabilities should be considered as goodwill.

- The value assigned to a particular asset or liability may differ from the amounts used to calculate the taxable income. An asset which attracts tax deductions would receive a higher value than an identical asset which does not attract deductions. A potential benefit from acquiring loss carry–forwards should be recognized only if there is a reasonable assurance of realizing that benefit.

The table below illustrates, on an aggregate basis, the effect on the balance sheet of the main acquisitions that occurred in 1988 and which involved the use of the 'purchase method of accounting'. Data in this table are at the time immediately following the combination of the acquiring and acquired companies, thereby excluding subsequent transactions that occurred in 1988. The combinations resulted in asset and equity values being carried at a higher level than prior to the acquisitions. The use of this method in 1988 has created discontinuities in PMA data series; the amounts involved represent important percentages of the industry's totals.

The Impact of the Utilization of the 'Purchase Method of Accounting': Selected Financial Data in millions of dollars

	Prior to Combination				
	Acquiring Companies	Acquired Companies	Total	Combined Companies	Adjustments
Net fixed assets	3837	6518	10355	11776	1421
Other long-term assets[1]	160	350	510	456	– 54
Long-term debt	480	7424	7904	6559	– 1345
Deferred income taxes	981	513	1494	1380	– 114
Other long-term liabilities	518	19	537	798	261
Common shares	701	1267	1968	1833	– 135
Retained earnings	1332	– 3707	– 2375	1082	3457
Other equity	481	705	1186	290	– 896
Working Capital[1]	692	– 307	385	19	– 366

(1) Exclusive of inter-company accounts.

The $1.4 billion increase in net fixed assets represents 27% of the total increase reported by the industry in 1988. The increase in retained earnings was almost entirely attributable to the utilization of the 'purchase method of accounting', while the decrease in long-term debt was mainly due to the renegotiation of debt with banks and other lenders.

Appendix F Reporting Energy Enterprises

Alberta Energy Company Ltd.
Alberta Oil Sands Equity
Altana Exploration Company
Amerada Minerals Corporation of Canada Ltd.
American Eagle Petroleums Ltd.
American Trading and Production Corporation
Amoco Canada Petroleum Company Ltd.
Anadarko Petroleum Of Canada Ltd.
Anderson Exploration Ltd.
AT&S Exploration Ltd.
ATCOR Ltd.
Barnwell Of Canada, Limited
Bow Valley Industries Limited
Bowtex Energy (Canada) Corporation
BP Canada Inc.
Bralorne Resources Limited
Canada Northwest Energy Limited
Canadian Hunter Exploration Ltd.
Canadian-Montana Gas Company Limited
Canadian Occidental Petroleum Ltd.
Canadian Roxy Petroleum Ltd.
CANPEX Co. Ltd.
Canterra Energy Ltd.
Carlyle Energy Ltd.
Chauvco Resources Ltd.
* Chevron Canada Limited
Chevron Canada Resources Limited
Chevron Standard Limited
Chieftain Development Co. Ltd.
CN Exploration Inc.
Columbia Gas Development Of Canada Ltd.
Conoco Canada Limited
Conwest Exploration Company Limited
Cooperative Energy Development Corporation
Coseka Resources Limited
Czar Resources Ltd.
Dekalb Petroleum Corporation
Denison Mines Limited
Dome Petroleum Limited
Dorset Energy Corporation
Dowbrands Canada Inc.
Dynamar Energy Limited
Dynex Petroleum Ltd.
Encee Group Ltd.
Encor Energy Corporation Ltd.
Enerplus Resources Corporation
Enron Oil Canada Ltd.
Erskine Resources Corporation
Excel Energy Inc.
* Federated Co-operatives Limited
Forest Oil Corporation (Canada Division)
Gardiner Oil and Gas Ltd.
General Electric Canada Inc.
Gulf Canada Resources Ltd.
Hamilton Brothers Canadian Gas Company
Harvard International Resources Ltd.
Home Oil Company Limited
* Husky Oil Ltd.
* Imperial Oil Limited
ICG Resources Ltd.
Inverness Petroleum Ltd.
* Irving Oil Limited
J.M. Huber Corporation
Kerr-McGee Corporation
Koch Exploration Canada Ltd.
LASMO Canada Inc.
LL&E Canada Ltd.
Lone Pine Resources Ltd.
Luscar Limited
Mark Resources Inc.
Maxus Energy Canada Inc.
Mobil Oil Canada, Ltd.
* Mohawk Oil Co. Ltd.
Morgan Hydrocarbons Inc.
Morrison Petroleum Inc.
Murphy Oil Company Ltd.
* Newfoundland Processing Limited
New Grade Energy Inc.
Norcen Energy Resources Limited
North Canadian Oils Limited
Norwich Resources Canada Ltd.
Novalta Resources Ltd.
Nova Scotia Resources Limited
Numac Oil & Gas Ltd.
Oakwood Petroleums Ltd.
Ocelot Industries Ltd.
Omega Hydrocarbons Ltd.
Page Petroleum Ltd.
Paloma Petroleum Ltd.
Panarctic Oils Ltd.
PanCanadian Petroleum Limited
* Parkland Industries Ltd.
Pecten Canada Ltd.
Pembina Resources Limited
Pennzoil Petroleums Limited
* Petro-Canada Inc.
Petrorep (Canada) Ltd.
* Petrosar Limited
Phillips Petroleum Canada Ltd.
Phillips Petroleum Co. Western Hemisphere
Phillips Petroleum Resources Ltd.
Placer CEGO Petroleum Limited
Poco Petroleums Ltd.
Ranchmen's Resources Ltd.
Ranger Oil Limited
Renaissance Energy Ltd.
Rife Resources Ltd.
Roan Resources Ltd.
Royal Trust Energy Corporation
Saskatchewan Oil & Gas Corporation
Sceptre Resources Limited
* Shell Canada Limited
Star Oil & Gas Ltd.
* Suncor Inc.
* Texaco Canada Inc.
Tintagel Energy Corporation
Total Petroleum (North America) Ltd.
Trans-Canada Resources Ltd.
Trilogy Resources Corporation
Triton Canada Resources Ltd.
* Turbo Resources Limited
* Ultramar Canada Inc.
Ultramar Oil and Gas Canada Limited
Union Pacific Resources Inc.
Universal Explorations (83) Limited
Unocal Canada Ltd.
Voyager Energy Inc.
Wainoco Oil Corporation
Webb International Minerals Inc.
Westar Petroleum Ltd.
Westcoast Petroleum Ltd.
Western Decalta Petroleum (1977) Limited
Westmin Resources Limited

* Denotes companies included in group of 'Integrateds and Refiners'.
All other companies belong to the category of 'Oil and Gas Producers'